NEW REMEDIES

AN ILLUSTRATED MONTHLY TRADE JOURNAL

635 OF

Materia Medica, Pharmacy and Therapeutics

FRED'K A. CASTLE, M.D., EDITOR

CHARLES RICE, ASSOCIATE EDITOR

VOL. VII

Azor Thurston

WILLIAM WOOD & COMPANY

PUBLISHERS

27 GREAT JONES STREET, NEW YORK

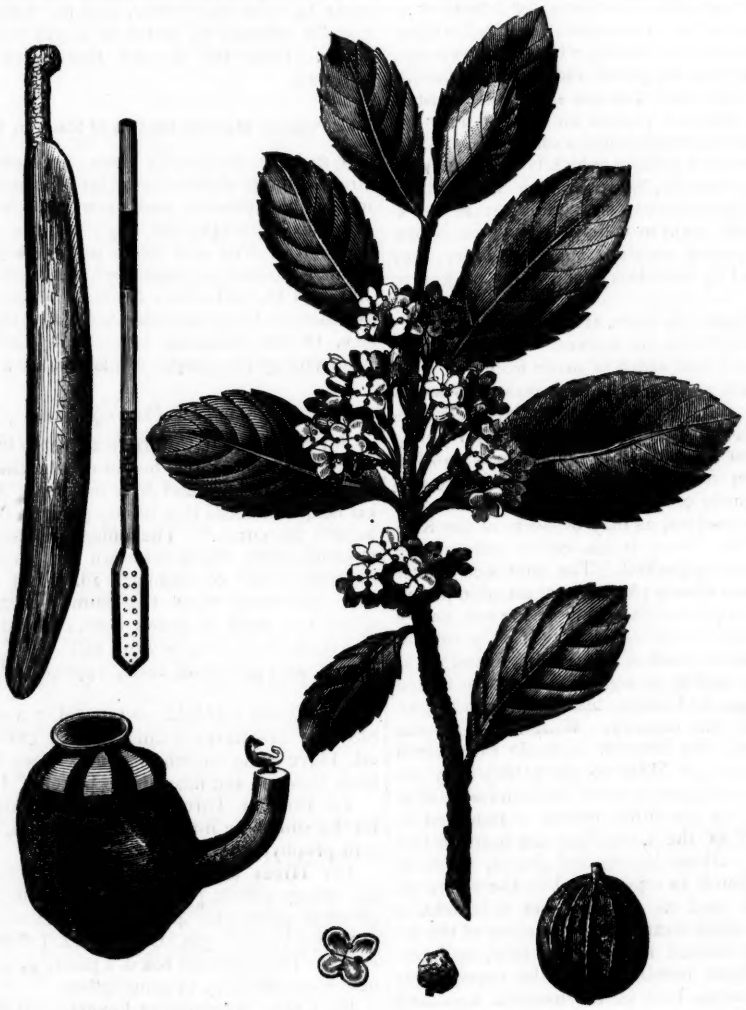
1878

RS1*
A515
v.7

OHIO STATE
UNIVERSITY

NEW REMEDIES.

VOL. VII., NO. 1. JANUARY 15, 1878. WHOLE NO. 43.



Maté, or Paraguay Tea.

The Paraguay Tea.

THE plant of which we here figure a flowering branch yields one of the most important of the vegetable products of South America. The Maté, or Paraguay Tea, occupies relatively the same position in South America which is filled in this country by the Chinese plant; and it is calculated that at least 8,000,000 lbs. are annually consumed in that country. It is yielded by the leaves and young shoots of a species, or of several nearly-allied species of Ilex, not very dissimilar to the

318351

English holly. It is a shrub or small tree with smooth, egg-shaped, irregularly serrate leaves, and axillary racemes of small white flowers, which are succeeded by berries as large as a pea. Mr. Miers has described several species in his paper on "The History of the Maté Plant," all of which produce the herb, and are by most authors considered as forms of one species, Ilex Paraguariensis. In the settlements of the Indians in Paraguay under the dominion of the Spanish government, the preparation of Maté—or Yerba, "the herb," as it was called—constituted the principal branch of industry in the country. The plant is prepared in different ways; sometimes the larger branches are roughly cut or torn from the plants and placed on hurdles over a wood fire until they are sufficiently roasted, after which they are placed on a hard floor and beaten; this operation knocks off the leaves and reduces them to a powder, which is then ready for use. More recently, however, the leaves have been roasted in large cast-iron pans set in brickwork, after the style in which Chinese tea is prepared; and, when they are sufficiently dry, they are powdered by machinery, and then packed in bags.

Like Chinese tea, there are different qualities made and known to the natives. The principal kinds are, first, that which is made from the half-opened leaves; secondly, the leaves from which the midribs and principal veins have been removed; and, thirdly, the later leaves and young twigs, dried or roasted, and reduced to a powder. In this latter form it is packed very tightly into large bags, made of the skins of animals, or into the skins themselves, as may be seen in the Kew Museum, where there is an entire skin of the great ant-eater so packed. The unbroken leaves are put up into square packages of metallic paper, upon which is printed the name of the tea and of the firm selling it, and in this way it is a regular article of trade in most of the towns. These packages are very similar in appearance to the tinned paper packages of Chinese tea, often seen at grocers' shops in this country. With regard to the vessels in which the infusion is made (and which gives the name of Maté to the plant), they are formed either of gourds or of earthenware; if of the former, they are either carved or mounted in silver, and if of the latter, they are more or less painted with various devices and glazed, the stem part of the gourd, as represented in the figure on p. 1, is not used as a spout but a handle, a spout being unnecessary in consequence of the infusion being sucked through the tube, or bombilla; and these bombillas, like the cups themselves, vary much, both in the material used and also in the elaboration of the workmanship. The commonest is a simple tin tube enlarged at the base and perforated with holes; another kind is made of wicker-work, and the best, of silver. These tubes, as well as the mounting of the cups, are often highly chased.

The Maté owes its refreshing properties, which seem to be very considerable, to the presence of a peculiar acid, as well as to theine, which has also been detected in it. The actual results of the use of Maté seem somewhat doubtful, for while some maintain that it will stimulate the languid, and, at the same time, calm the restless, others consider its use prejudicial to health. The Creoles of South America are especially addicted to the use of it, alway taking a supply of the leaves with them in their travels, and drinking an infusion of them before each meal. The leaves will bear to be steeped two or three times, but fresh water must be used every time, and the infusion must not be allowed to stand or it will become deep black.—From the *London Garden* of Dec. 8th and 22d.

The Popular Materia Medica of Eastern Tennessee.

We have frequently seen accounts of the strange things which entered into the materia medica of the ancients, and even the Chinese and Hindoos of the present day; but the *Nashville Journal of Med. and Surg.* publishes in its December number a paper by Meriwether Lewis, A.M., M.D., of Lenoir, Tenn., in which the writer vouches for the employment, even at the present day, of the following remarkable collection of nostrums by the people of his locality:

Popular Prescriptions.

For Asthma.—1st. "Bore an auger-hole into a white oak tree at the height of the child; place in it a lock of hair, and drive in a pin. As soon as his height exceeds that of the position of the pin, he will be cured." The efficacy of this remedy depends upon the well-known fact that children outgrow a case of asthma. 2d. "Eat a cooked rat. 3d. Stand upon the paunch of a recently killed cow until it grows cold. 4th. Penis of a hog fried, and eaten without salt. 5th. Tobacco leaves, or a plaster of snuff, applied to the naked chest."

For Thrush (*Aphthæ*).—1st. "Let a stud-horse blow his breath three times in the child's face.* 2d. Have some one who has never seen his father, blow thrice in the face of the patient." †

To Prevent Thrush.—1st. "Soon after birth, let the sun shine into the child's mouth." A certain prophylactic.

For Hives (*Urticaria*).—1st. "Egg-shell tea. 2d. Sheep saffron.‡ 3d. Tea of white hen-dung (Stercus gallinæ). 4th. Tea of ground-ivy (*Hedera terrestris*). 5th. Catnip tea (*Nepeta Cataria*)." The egg-shell tea is a pretty good antacid, hence its efficiency in some cases.

For Chills (Intermittent Fever).—1st. "Whiskey and sumach berries (*Rhus glabrum*)." We know this to be a good remedy, as we have seen it used with excellent results. 2d. "Yarn saturated with maid's water (*Urina Virginis*), and tied around

* The usual fee for this service is $1 00.

† Hence bastards are much sought after.

‡ Common technical term for sheep-dung tea.

the waist an hour before the expected return of the chill.* 3d. A blister on each wrist and ankle."

For Difficult Dentition.—1st. "Tea of the inside of a chicken's gizzard." In this is plainly to be seen a marked anticipation of the modern digestive agent, "Ingluvin, from the *Ventriculus Collaris Gallinaceus*." While we admire the sesquipedalian name of the latter (for we rather like big names), and do not wish to discourage its employment, we nevertheless doubt its possession of many advantages over the humble gizzard tea of the old ladies' pharmacopœia. 2d. "Rub the gums with the brains of a live rabbit." A remedy often employed with asserted benefit.

For Incontinence of Urine.—1st. "Mole-skin tea."

For Burns.—1st. "Ointment of bamboo leaves. 2d. Certain persons who are gifted with such power can draw out the fire by blowing seven times upon the injured part." Such individuals are frequently in demand, as their curative powers are generally believed.

For Cramp.—1st. "Nine sow-bugs in emulsion. 2d. Chamber-lye."

For Rupture (*Hernia*).—"Split a 'sapling,' pass the child through to the split, and tie up the split. As soon as it unites the child will be well.

For Toothache (*Odontalgia*).—1st. "The blood of a snapping-bug, dropped into the ear, is an infallible cure."

For Dyspepsia.—1st. "Tea of muscadine vines. 2d. Soot tea."

For Scrofula.—1st. "Boil a flint rock (*impure silex*) in water, and drink the tea. 2d. The blood of a black cock, rubbed upon the enlarged glands."

For Irritable Temper in Children.—1st. "Fodder tea."

For Piles, rheumatism, or Colic.—1st. "Carry a buck-eye (*Æsculus glabra*) in the pocket."

For Stammering.—1st. "Draw a hog's pancreas through the mouth."

For Weed (*Puerperal Mastitis*).—1st. "Tie a bag of sulphur around the neck. 2d.—Poultice of cow's dung (*Stercus Vaccinæ*) to the breasts."

For Ringworm (*Herpes Circinatus*).—1st. "Rub with green walnuts. 2d. Ointment of soft soap and gunpowder."

For Colic.—1st. "Cockle-bur tea (*Xanthium*). 2d. Boil an old pipe and give the tea."

For Shingles (*Herpes Zoster*).—1st. "Cut off a black cat's tail, and apply the blood to the eruption." Vouched for by a minister who has used it successfully. (?)

For Hemorrhage of the Lungs.—Rag-weed tea (*Ambrosia elatior*).

For Wens or Lupus.—1st. "Rub a dead man's hand over the tumors."

For Sterility.—1st. "Horseshoe nails in vinegar and water." The weak solution of acetate of iron thus obtained is mixed with whiskey, and constitutes a very popular tonic.

For Whooping-Cough (*Pertussis*).—1st. "Nearly drown the child by suddenly pushing him into the water." This, as all will admit, is the most remarkable treatment mentioned in this paper. And strange to say, it strikes the true pathology of the disease. The remedy had its origin in accidents. A child of a Baptist minister living at this place, while suffering from a very severe attack of pertussis, fell into the creek, was terribly frightened, and almost lost its life. From that hour he was cured. Now we have read in medical journals, within the last few years, of two or three cases in which severe attacks of this disease were completely relieved by the patient's suddenly falling down-stairs, or otherwise experiencing a severe shock of the nervous system. The case of the minister's child was similar to these; and the cure was effected by the same means, namely, a shock to the nervous system. Do not these facts tend strongly to support the purely nervous pathology of the disease?

For Sore-eyes (*Ophthalmia*).—1st. "Recent human milk."

To Increase Labor-pains.—1st. "Place the husband's hat on the head of the patient. 2d. Infusion of black-gum bark stripped down. If stripped up, it has the opposite effect. The bark of Prunus virginiana is believed to be emetic or cathartic, according to the direction in which it is stripped from the tree. It is also a popular idea that if a woman goes to sleep within an hour, or eats honey within a week after confinement, it will result in inevitable death.

For Epilepsy.—1st. "The skull-bone of a man." For an instance in which this was used, *vide Nashville Journal of Medicine and Surgery* for July, 1876, page 11.

It is pretty generally believed among the more ignorant classes that if the menstrual blood (*Sanguis menstruus* of a woman be given to a man, it will cause him to fall madly in love with the woman. We know instances in which the strong attachments of respectable men and disrespectable females is accounted for in popular opinions on this ground.

In conclusion, we would say that we have not written the above article merely for the amusement of the reader, nor to while away an idle hour. We have written seriously and in earnest, fully believing that the better the physician is acquainted with the peculiar views of the common people in regard to disease, and the more extensive his knowledge of their domestic remedies, the greater will be his influence over them for good. He will often find a secret course of domestic practice carried on contemporaneously with his own, and perhaps neutralizing it completely. A distinguished Knoxville physician, while treating an injured hand, noticed at each visit a very offensive odor. Fully posted in regard to the popular *materia medica*, his suspicions were aroused; and,

* Some local congestion is apt to occur in boys, but the old ladies say it is neither "pathological" nor "permanent."

on pressing his inquiries, he found that the patient was alternating the doctor's excellent lotion with a poultice of—human fæces!

On a New and Simple Process for Preparing Sodium and Potassium Carbonates, etc.

THE principal natural compounds of soda and potassa are the respective chlorides, which are transformed into sulphates and carbonates by several well-known, but by no means always simple methods. Mr. Ed. Bohlig, in a late paper in the *Bayerisches Industrie und Gewerbe Blatt*, describes a new and simple process for preparing sodium and potassium carbonates directly from the chlorides by the intervention of magnesium oxalate, the alternate formation and decomposition of which, as well as the solubility, is exactly suited to the process.

1. Magnesium oxalate (freshly prepared when newly starting, but after the first operation obtained as a by-product in the next step) is allowed to drain, and then mixed in a large vat with the proper quantities of sodium chloride or concentrated brine and hydrochloric acid, after which it is allowed to stand a few hours. Decomposition takes place almost instantaneously; all the magnesium goes into solution in form of syrupy magnesium chloride, while all the sodium and the oxalic acid are deposited as a crystalline acid salt (acid sodium oxalate, or binoxalate of sodium). Since the magnesium oxalate is always obtained of the same composition and in the same quantity, it is sufficient to determine its weight once for all, and to take each time the previously calculated amounts of common salt. The acid need not be weighed either; it must be added in just sufficient quantity to destroy the milky appearance which the mixture first assumes. The reaction is as follows:

$$\underset{\text{magnesium oxalate}}{MgC_2O_4} + \underset{\text{hydrochloric acid}}{HCl} + \underset{\text{sodium chloride}}{NaCl} =$$

$$= \underset{\text{sodium binoxalate}}{NaHC_2O_4} + \underset{\text{magnesium chloride.}}{MgCl_2}$$

The crystalline powder of sodium binoxalate is transferred to large draining filters, washed with water until the acid solution of magnesium chloride is removed, and worked up, as below described, while still moist. The acid solution of magnesium chloride is made use of, several times in succession, as so much hydrochloric acid, together with a quantity of fresh acid sufficient for the reaction. Finally, when the magnesium chloride has become too much accumulated, it is worked up by itself into magnesia and hydrochloric acid.

2. In order to obtain the soda, the sodium binoxalate is brought together with an equivalent quantity of magnesium carbonate and water in a tight cask. As soon as the remaining air has been nearly expelled by the generated carbonic acid gas, the cask is closed and a stirring mechanism is set in motion. A pressure-gauge attached to the cask indicates a gradual rise of the pressure to two atmospheres, but on continued stirring this diminishes until finally the gauge stands again at 0°. The cask now contains a concentrated solution of sodium bicarbonate and a precipitate of magnesium oxalate, which latter, being coarsely granular, is easily separated from the liquid, and is used over again, after washing, for a new operation. The solution of sodium bicarbonate is boiled for a short time with magnesia, obtained in distilling magnesium chloride, and both are thereby converted into simple carbonates. Both reactions are shown in the following scheme:

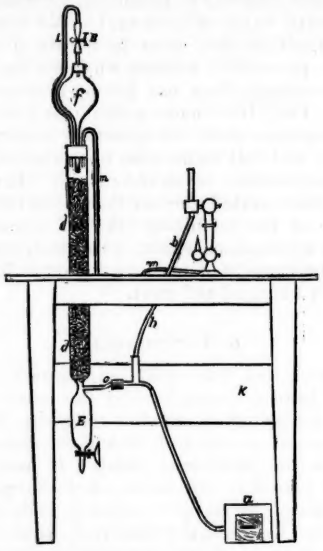
1. $\underset{\text{Sodium binoxalate}}{NaHC_2O_4} + \underset{\text{Magnesium carbonate}}{MgCO_3} = \underset{\text{Sodium bicarbonate}}{NaHCO_3} + \underset{\text{Magnesium oxalate.}}{MgC_2O_4}$

2. $\underset{\text{Sodium bicarbonate}}{2NaHCO_3} + \underset{\text{Magnesia}}{MgO} = \underset{\text{Sodium carbonate}}{Na_2CO_3} + \underset{\text{Magnesium carbonate}}{MgCO_3} + \underset{\text{Water.}}{H_2O}$

As the solution of sodium carbonate, after concentration to 40° B., is incapable of dissolving or retaining in solution any sodium oxalate, it follows that the whole of the oxalic acid is recovered. The magnesia, which is required for the process, is obtained by distilling magnesium chloride, which thereby splits up into hydrochloric acid and magnesia. One-half of the latter receives, as we have seen, its carbonic acid by boiling with sodium bicarbonate; the other half is placed, while still moist, upon trays in great wooden closets, through which the gases of the furnace pass, and is thereby carbonated. The process may also be so modified that the sodium binoxalate is first decomposed by caustic magnesia and that magnesium carbonate is afterwards added. The whole mixture is then transferred to a stirring-cask, provided with openings for the passage of cooled furnace-gases, whereby the caustic soda present is very soon carbonated.

3. As soon as a large quantity of magnesium chloride solution has become accumulated, it is tested as follows: A small sample is mixed, while boiling, with magnesium oxalate, as long as the latter is dissolved, and then allowed to cool. There should be no crystalline deposit of sodium binoxalate formed, a proof that the solution does not contain any sodium chloride in excess and is fit for distillation. It is first neutralized by adding some more magnesia, and evaporated over a naked fire in large kettles to a doughy consistence, short of driving off any hydrochloric acid. It is then transferred into the ordinary soda-furnace, where it is distilled with a moderate fire. The eliminated hydrochloric acid is condensed in the usual manner. The residuary mass should not be heated red hot, so as not to impair its porosity or its ready affinity for carbonic acid. If, however, the first-mentioned test shows the magnesium chloride to contain sodium chloride, the whole mass must be mixed with magnesium oxalate, and, after removal of the precipitated sodium oxalate, saturated with magnesia and distilled.

The same process, in all its details, may also be employed for the manufacture of potassa and its carbonate.



A Gas Flame for Laboratory Table.

THE *Scientific American Supplement*, No. 95, gives a description of an ingenious apparatus which will furnish a gas blow-pipe for use, when the ordinary illuminating gas is not available. The essential features of the apparatus may thus be described, with the aid of the adjoining illustration: A glass tube (*d*) packed loosely with pieces of marble, is supported on a table as shown in the cut. Above it is a reservoir (*f*) containing a volatile hydro-carbon, which discharges its contents drop by drop from a small opening upon the marble scraps; the rate of flow being regulated or arrested by the pinch-cock above, which, when open, permits air to be displaced from the cylinder *d* to the receiver *f*. *E* is a receptacle for an excess of the fluid, and may itself be emptied by the stop-cock at its lower end. When the foot-bellows *a* is worked, part of the air is forced through the pipe *b* to the burner, while the balance, passing through the pipe *c*, enters the cylinder *d*, and is discharged by the pipe *m*. In its course through the cylinder *d*, the air becomes charged with the hydro-carbon vapor, and forms an efficient substitute for illuminating gas. The burner does not differ from the one employed when the latter gas is used.

Chlorodyne.

JOHN H. GILMAN, M.D., of Lowell, writing to the *Boston Med. and Surg. Jour.*, says: "Many formulæ of chlorodyne have been published, differing widely in the proportion of their ingredients, but not materially in the ingredients themselves. In the original article and in all the published substitutes that I have seen, the method of combining the ingredients of the preparation is both faulty and unscientific, being, in fact, the mixture with treacle of certain articles, which are insoluble in it, which separate on standing, and which require to be shaken together when used. Some time ago I made some experiments with the object of producing a chlorodyne in which all its ingredients should be so combined as to form a perfectly clear solution, which could be diluted with water without separating into its component parts, and a preparation of which each dose should contain a definite quantity of each active ingredient. Taking advantage of the fact that chloroform is soluble in glycerine (one part to six or seven), I have added glycerine to my formula to replace part of the treacle, in order to render the chlorodyne a perfect solution. As elixirs are now fashionable I have given this preparation the technical name of *Elixir Chloroformi Compositum* (chlorodyne):

℞. Chloroformi ..... ʒ ij.
Glycerinæ ..... ʒ ij.
Spts. vini rectificati ..... ʒ ij.
Spts. menthæ piperitæ ..... ʒ ij.
Acid. hydrocyanici diluti ..... ʒ ij.
Tinct. capsici ..... ʒ ij.
Morphiæ muriatis ..... gr. viij.
Syrupi (treacle) ..... ʒ iij. M.

Dose for an adult, one teaspoonful; for a child one year old, three to five drops, diluted with water, repeated at proper intervals if necessary.

A fluid drachm contains two minims each of chloroform, dilute hydrocyanic acid, tinct. capsicum, and essence of peppermint; also, an eighth of a grain of morphine. The treacle employed should be the best sugar-house molasses (golden syrup), so that the chlorodyne will have a fine appearance.

This chlorodyne requires no special skill to compound, and is equal to any for the relief of pain, vomiting, cholera morbus, etc. The dose of this preparation, it should be remembered, is greater than that of Brown's chlorodyne.

In a following number of the same journal, DR. EDWIN FARNHAM writes: "I have used, during eight years, a prescription compounded according to the following formula, in the same dose, and for the same indications mentioned in the case of Collis Brown's chlorodyne, and have found no difference in the results obtained:

℞. Morphiæ muriatis ..... grs. viij.
Aquæ destillatæ ..... ʒ ss.
Chloroformi ..... ʒ iss.
Tinct. cannabis ..... ʒ ss.
Acid. hydrocyanici dil ..... gtt. xij.
Alcoholis ..... ʒ iss.
Olei menth. pip ..... gtt. ij.
Oleoresinæ capsici ..... gtt. i.
or Tinct. capsici ..... gtt. x.
Misce secundum artem.

"This eliminates the treacle, which can scarcely be an active ingredient in the compound."

The Distribution of Tetanic Poisons in the Vegetable Kingdom.*

BY PROF. THEOD. HUSEMANN.

(Continued from page 331.)

3. Apocynaceæ.

Besides a substance contained in *Gelsemium sempervirens* Ait., which is either the alkaloid gelsemia itself, or else a body accompanying it, there are no other tetanic poisons known to exist in this family, nor does our present knowledge of the above substance suffice for its proper classification.

4. Euphorbiaceæ.

The presence of a cerebral tetanic poison in *Buxus sempervirens* L. is somewhat surprising in view of the fact that we have been taught to regard the active principle, buxin, as possessing entirely different properties. However, as the experiments of Ringer and Murrell have been made with an extract of box-wood, and not with buxin, it is not unlikely that there is a separate body existing in box-wood, to which the tetanic effects must be attributed. In accordance with Flückiger's views, buxin is now generally held to be identical with bebeeria and pelosin (the alkaloids of bebeeru and pareira), and the first two are much used as remedies in intermittent fevers. Now bebeeria has been shown by Binz and Conzen to act like quinia, which, according to Köhler, directly diminishes the reflex functions of the spinal marrow. Buxin may therefore, *a priori*, be supposed to have the same properties; but if it should be found to have tetanic properties, its identity with bebeeria would thereby become highly problematical.

The sub-order Buxineæ contains a plant, *Hyænanche globosa* Lamb, native of the Cape of Good Hope, which is used for poisoning wild animals by mixing raw mutton with it. According to J. B. Henkel,† the plant contains a peculiar substance, acting like strychnia and other tetanics, but differing from them by not increasing the reflex action. It would therefore appear that this substance belongs to the picrotoxin group. Some species of *Phyllanthus* (*Ph. piscatoria*, H. B. K., of South America, and *Ph. virosus*, Roxb., East Indies), which are used for stupefying fish—just like the berries of cocculus—probably belong likewise to the picrotoxin group.

5. Solanaceæ.

According to Fraser, atropia produces in frogs first a somewhat protracted paralytic condition, which is followed by a series of tetanic convulsions of considerable duration. Other substances from this family affect frogs even more rapidly and energetically, particularly the alkaloid, which accompanies hyoscyamia in *Hyoscyamus niger* L., and which Buchheim has denominated sikerania (from the Persian name of henbane). We have, however, no reliable data as to the nature of the convulsions produced; besides, while we are certain that hyoscyamia does not belong to this class of poisons, Prof. Husemann states that the extract of hyoscyamus does not generally produce convulsions, and that he has only observed them after the administration of an old extract. It remains to be demonstrated whether there is an occasional absence of the tetanizing alkaloid sikerania, or whether hyoscyamia, which, by its paralyzing effect, would be capable of masking the other, becomes gradually changed and inert.

6. Leguminosæ.

Harnack and Witkowski have shown that the calabar bean contains, besides the paralyzing alkaloid physostigmia, another tetanizing alkaloid, calabaria (or calabarine), which undoubtedly belongs to the picrotoxin group. It may be remarked here that the latter alkaloid is generally accompanied by an inert coloring matter, which Duquesnel has termed rubreserine, which is, however, even more largely present in the commercial physostigmia, and appears to be formed from the latter on keeping.

This concludes the list of tetanic alkaloids. The following families contain non-basic tetanic bodies.

7. Menispermaceæ.

This family includes not only *Anamirta cocculus*, W. et A., the mother-plant of fish-berries, but also the genus *Cocculus*, of which particularly the South American species appear to possess poisonous properties. While the arrow-poisons of the South American Indians have in the main a paralyzing effect upon the peripheric nerve-branches, it can hardly be doubted that tetanic poisons have also been made use of by the Indians. At least the so-called tikimas, the oldest known South American arrow-poison, appears to have belonged to this class, and to have been derived from several species of Cocculus (*C. Amazonum*, D. C.?). Martius brought the bark of the plant employed in its preparation to Europe, and Herberger prepared from it a violently tetanizing extract.

8. Lauraceæ.

While there is no doubt that picrotoxin and the other members of its group produce convulsions by exciting cerebral centres, a more complex effect must be ascribed to camphor, which has long been known as a convulsive agent, but which shares with phenol (carbolic acid) the property of not producing convulsions in cold-blooded animals. Probably at least a portion of the effects of both substances depends upon peripheric excitement.

* Abstract of a paper in *Archiv der Pharm.*, Sept., 1877, p. 193 sq.

† *Beiträge zur Kenntniss der chem. Bestandtheile der Früchte von Hyænanche globosa Lamb.* Würzb., 1857.

The same is probably the case with all other volatile oils which produce convulsions in large doses. It is, however, singular, that only the essential oils of certain families act in this manner, while those of other families, particularly those of the Labiatæ, have no convulsive effect.

9. Compositæ (Synantherеæ).

This family includes both ethereal oils and neutral principles of tetanic properties. The principal one is santonin, which probably is found not only in *Artemisia Cina* Berg, but also in other vermifuge species of *Artemisia*. Another such poison is derived from the Mexican *Senecis canicida*, which is known in its home under the name itzcuimpatli, or yerba de la puebla, or yerba de los perros. According to the investigations of a Mexican chemist, this poison is said to be an acid. The essential oils obtained from Santonica (*Artemisia Cina* Berg.), *Tanacetum vulgare* L. (*absinth*), which are all vermifuge, are known to produce convulsions in warm-blooded animals. They are, however, not merely related therapeutically, but also chemically, since they all contain a stearoptene, which is isomeric with the camphor of the Lauraceæ. It appears, therefore, highly probable that the convulsions are due to this body, and not to the volatile hydrocarbon which holds it in solution. A careful investigation of the effects of other camphors from this family, as helenin or elecampane-camphor, buphthalmum camphor, and pellitory-camphor, would be of great interest.

10. Coniferæ (Cupressineæ).

It is, however, certain that there are essential oils which produce tetanic effects without containing any stearoptene isomeric with camphor. *Juniperus Virginiana* L. yields oil of cedar, which contains a hydrocarbon $C_{15}H_{24}$, cedrene, and a camphor of the composition $C_{15}H_{26}O$. Whether the convulsions produced by this oil are of cerebral origin, or merely peripheral (in the nerve-branches of the uterus), is not decided. The oils of *Juniperus Sabina* L. (*savin*), and *Juniperus communis* L., are devoid of tetanic properties.

11. Umbelliferæ.

It is a singular fact that the ethereal oils of this family have no convulsive, but rather paralytic effects upon animals; while, on the other hand, the family is abundantly provided with cerebral tetanics. *Cicuta virosa* L. contains a soft resin, called by Boehm cicutoxin, which is probably formed from the ethereal oil, and which produces in animals convulsions and salivation. A similar substance exists probably in *Oenanthe crocata* L., a much-dreaded native of England and Southern Europe. According to the recent investigations of Porter, *Sium latifolium* L. contains likewise a similar resin having the same properties. Most likely there are several other species of each of these genera, which contain allied substances. This is no doubt the case with the North American *Cicuta maculata* L. (hemlock); and most probably also with *Oenanthe fistulosa*, *Oenanthe Lachinalii*, *Oenanthe peucedanifolia* (all natives of Germany); *Oen. apiifolia* (Portugal); and *Oen. incrassans* (Greece). It is remarkable that all these poisonous Umbelliferæ are aquatic plants.

12. Simarubaceæ (Coriarieæ).

The series of the known cerebral tetanics is concluded by the active principle of *Coriaria myrtifolia* L., native of Southern Europe and Northern Africa, which was named by its discoverer (Riban) coriamyrtin. Very similar in its operations is the Australian poison tut or tutu, derived from *Coriaria sarmentosa* (Forst.), and which is either identical with coriamyrtin, or at least closely related to it. It appears singular, that Eastern Asia is said to furnish a non-poisonous species of Coriaria, namely *Coriaria Nepalensis* (Wall), while all the species growing in other countries (*C. sarmentosa* Forst. is found also in Chili and Peru) are decidely poisonous.

In monocotyledonous families no pure tetanic poison, with the exception of veratria, has so far been observed. A few observations on the effects of *Lolium temulentum* L. have shown it to produce tremor, but no convulsions proper, and would seem rather to characterize it as a paralyzing poison.

Bicarbonate of Sodium in the Treatment of Burns.

A most remarkable property has recently been discovered in bicarbonate of sodium, viz.: its power of arresting the pain of a burn. The latest case reported in which it was used for this purpose was by Coleman Rogers, M.D., of Louisville. He was called to attend a fireman who had received a burn, involving two-thirds of the face, both ears, and extending over the whole back of the neck to down between the shoulder-blades. Both hands were also severely burned, and the suffering was intense.

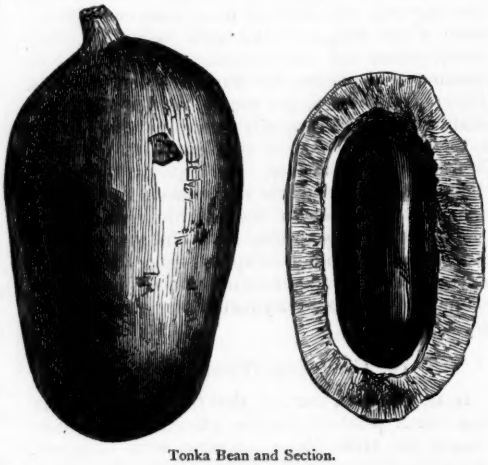
Enough water was added to bicarbonate of sodium to make it of the consistence of a thin paste, which was smeared over the burnt surfaces; cloths wet with a saturated solution of sodium bicarbonate were also applied. The relief to the pain was prompt and permanent, and after an hour a permanent dressing of white lead was applied. The patient was reported as doing well.

The Tonka Bean.

Considerable interest attaches to the plant represented in the accompanying illustrations—the Tonka or Tonga bean (Dipteryx odorata), inasmuch as it is one of only eight species included in the genus, all of which are large forest trees of Brazil, Guiana, and the Mosquito coast. The tree bearing the Tonka bean acquires in the forests of British Guiana an average height of

about 60 ft. It has alternate leaves composed of from five to seven alternate leaflets. The flowers are borne in racemose panicles, and the fruit, as will be seen, is of a somewhat oval form, consisting of a thick fleshy substance, which becomes, when mature, of a hard, woody character, and encloses a long, almond-shaped, shining black seed. This seed has a powerful odor, resembling that of newly mown hay. At one time, when snuff-taking was much more general than at present, a Tonka bean was generally kept in the snuff-box for the sake of the agreeable fragrance which it imparted to the snuff. Now, however, the uses of Tonka beans are mostly confined to the preparation of elixirs, of perfumes either for fluid extracts for handkerchiefs or for sachet powders. They are often, moreover, to be seen in hosiers' shops, where they are sold for placing in drawers with linen. For these purposes they are imported to the extent of a few hundredweights per annum. The creoles fully appreciate the fragrance of these seeds, and make use of them not only for their perfume, but also for putting in chests or drawers for the purpose, they say, of driving away insects. A closely-allied species of Dipteryx, namely, D. eboensis, a native of the Mosquito country, bears a fruit and seed almost identical in appearance with those of D. odorata. It has, however, no perfume, but contains a quantity of thick oil or fat, which is extracted by the natives, and used as a hair oil. It was at one time said that this oil formed the basis of a much-advertised hair-restorer, known as "Balm of Columbia."—*The Garden.*

Branchlets of Tonka Bean Tree.



Tonka Bean and Section.

Hydrobromic Acid.

SEVERAL formulæ for the preparation of this acid have been given by us in our last volume (pp. 107, 184, 267), but none of them appears to be as simple as that given by Hager,* which consists in placing into a flask 100 parts of crystallized sodium hyposulphite, 50 parts of bromine, and 10 parts of water, and conducting the generated gas into the upper part of a layer of water amounting to 140 parts. Whenever the current of gas becomes slower, a gentle heat is applied to the flask. The product amounts to 185 to 190 parts of liquid acid, containing 25 per cent. of absolute hydrobromic acid (HBr), and has a spec. grav. of 1204. It should be kept in a cool place and protected from the light.

* *Handbuch d. Pharmaceut. Praxis* I., 628. *Manuale Pharm.*, I. 8.

New Reagents for Bile Pigments.

W. G. SMITH recommends the use of tincture of iodine, already proposed by others, as a reagent for bile in urine. It has this advantage over nitric acid, that it excludes the possibility of confounding bile with indican, and that the reaction is more lasting. The reaction is best seen by allowing a few drops of tincture of iodine to flow carefully on the surface of the urine in a test-tube, when a fine green color will be developed at the line of contact, if there are any bile pigments present. The color lasts for some time, occasionally as long as 24 hours. Strongly saturated urine, as it is found in cases of pneumonia for instance, does not give the reaction. The author has also found that hydrogen peroxide, or ferric chloride, or a solution of lead peroxide in acetic or phosphoric acids produces the same green coloration with bile pigments as tincture of iodine.—*Chem. Centralbl.* [3], 8, 299.

Toxic Effects of the Bromides.

DR. E. T. EASLEY, of Little Rock, Ark., writes to the *Amer. Med. Weekly* an account of a case in which ʒ iij. instead of 3 iij. of bromide of potassium was ordered for a patient suffering from epileptic convulsions of a particularly severe character. The convulsions were not entirely arrested by the amount taken (quantity not stated), but intense bromism was produced, the symptoms of which Dr.

Easley summarizes thus: The tongue was thickened; slowly and partially protruded by great effort, and covered with a thick, tenacious secretion. 2. The articulation was drawling, difficult, and imperfect. When a question was asked, the answer would be intelligent as far as it went, but it would frequently break off in the middle of a sentence. If the patient were again aroused when this occurred and the interrogatory repeated, she probably would reply as if vexed: "Well, I have told you." 3. The heart-pulsations were diminished in force and frequency, the pulse falling as low as 60, the temperature to 80°. Respiration, without the stertor of opium-poisoning, was slow and easy. The breath was not only fetid, but nauseous, the nausea peculiar to bromism, and which cannot be well described. 4. The pupils were dilated, the lids of the eyes heavy and opened with difficulty. When shaken and desired to do so, patient would make the effort, and the voluntary elevator muscles could be seen to strain before accomplishing their function. 5. Constipation, which is the rule under such circumstances, attended in the present instance. Hammond says diarrhœa occurs in rare cases. 6. The kidneys acted freely, and the patient's safety is perhaps due to the rapid elimination of the drug by these organs. The eruption mentioned by some writers was not observed in this case, and the patient made a good recovery.

Fir-Leaf Oil.

THE Pharmacopœia of the Throat Hospital of London, which was published in 1872, under the editorship of Dr. Morell Mackenzie, contains among its list of materia medica, "oleum folii pini sylvestris," which is afterwards mentioned as entering into a preparation called "vapor pini sylvestris."

This vapor is now ordered to a considerable extent, and the oil is frequently prescribed under the abbreviated name "oleum pini sylvestris," which term, however, must not be interpreted as referring to common oil of turpentine, obtained by incising and puncturing the trunk of the tree, and subsequent distillation. The above-mentioned oil is distilled from the leaves of *Pinus sylvestris* L. (Scotch Pine), and is well known in Germany, whence it is imported to England under the name of fir-wool oil. It is also largely sold both in England and on the Continent as a patent medicine for external use in rheumatism.—(A. W. Postans in *Ph. J. and Trans.*, Oct. 13.)

Another similar oil is Oleum Pini Pumilionis, which is distilled from the leaves and young branches of *Pinus Pumilio* Willd. (Mountain Pine), a dwarf pine closely related to the common Scotch Fir. The oil is nearly colorless and has a most agreeable balsamic odor. It has a spec. grav. of 0.893 at 62° F. It is held in high estimation in Germany, whence it is imported.

The formulæ of the two inhalations prepared from these oils are as follows:

1. *Vapor Pini Pumilionis.*

℞. Oil of Mountain Pine..... ½ drachm.
Carbonate of Magnesium (light).. 15 grains.
Water..... q. s. ad 1 ounce.

Mix.—A teaspoonful in a pint of water at 140° F. for each inhalation.

Use.—Stimulant. Rather more powerful than the fir-wool oil.

2. *Vapor Pini Sylvestris.*

℞. Oil of Scotch Pine (Fir-wool oil) .. 40 min.
Carbonate of Magnesium (light)... 20 grains.
Water..... q. s. ad 1 ounce.

Mix.—A teaspoonful in a pint of water at 140° F. for each inhalation.

Use.—A mild but useful stimulant in chronic laryngitis.

Note on the Detection of Strychnia.

MR. ALF. H. ALLEN read a paper on this subject before the Society of Public Analysts of Plymouth, which we reproduce from the *Analyst*:

"In my practice I have had a great variety of animals submitted to me to be tested for poison. The number of cases in which strychnia has been found is probably greater than all other cases put together, and as I find some chemists profess a difficulty in applying the tests for strychnia, I believe I may do a service by publishing my method of procedure, though it has no claim to novelty, except, perhaps, in one or two details.

"The matter to be tested is, first of all, digested on the water-bath with water and some acetic acid. Alcohol is next added in sufficient amount to facilitate the filtration of the liquid. The filtered liquid is evaporated nearly to dryness, water again added, and the solution filtered. The clear liquid is again evaporated to a syrup, strong alcohol added, and the liquid once more passed through a filter. The alcoholic solution is evaporated, the residue taken up with a small quantity of water, the solution filtered, if necessary, and treated with soda in moderate excess. The alkaline liquid is next shaken with ether, the ethereal layer removed with a pipette and allowed to fall—one drop at a time—into a porcelain basin heated by hot water. In this manner the strychnia is concentrated in a comparatively small space, instead of being spread out over a large surface. When the ether has all evaporated and the basin become cool, the residue is treated with concentrated sulphuric acid.

"There is considerable choice in the oxidizing agent employed. Bichromate of potassium is decidedly the worst, in my opinion, of all those commonly used. Dioxide of lead is not very satisfactory. Powdered ferricyanide of potassium gives a very good result, but requires to be used carefully. Finely powdered dioxide of manganese gives the best results in my hands. It should be added to the sulphuric acid in moderate amount, so as not to obscure the violet coloration, and the

mixture should be well stirred. The changes of color occur much less rapidly with the manganese dioxide than with ferricyanide. This is in some cases an advantage.

"I have sometimes used dialysis for the original extraction of the strychnia, but as the aqueous liquid requires to be subsequently treated in much the same manner as already described, the loss of time involved is seldom accompanied by any compensating advantage.

"Dr. Muter said he had found that the agitation of the acid solution of the strychnia with ether, to remove indifferent matters, greatly facilitated the subsequent purification of the strychnia.

"Mr. Thompson had obtained good results by preparing chromate of strychnia, and subsequently treating that salt with sulphuric acid."

Prolonged Syncope treated with Amyl Nitrite.

IN *The Practitioner* of December, Dr. William O'Neill reports a case of syncope occurring in a gentleman sixty-five years of age, suffering from hypertrophy with dilatation of the heart, in which amyl nitrite was administered by inhalation, from four P.M. to midnight, about two drachms in all being consumed. Giving a few drops at a time on a handkerchief, produced so little effect that the patient was allowed to inhale the fumes from the open bottle. The next day the face was much flushed, and this, with fever, lasted for a couple of days. Together with the amyl nitrite, warm applications to the limbs and general surface were found to be very useful.

The Precipitation of certain Metals by Metallic Magnesium.

THE *Répertoire de Pharmacie* of November, 1877, contains an interesting article by Is. Kupferschlaeger, of Liege, on the precipitation of certain metals by magnesium, of which the following is an abstract:

Copper.—If metallic magnesium is introduced into a neutral, very dilute and recently boiled solution of cupric sulphate, to which a little ammonium chloride has been added, the whole of the copper is precipitated in form of red grains which may be collected on a weighed filter, washed with boiling water, dried and weighed with exclusion of air.

Lead.—The solutions of salts of this metal, which are best suited for precipitation by this method, are those of the chloride and of the acetate. The solutions must be very dilute and perfectly clear; should this not be the case, especially in using the acetate, a drop or two of acetic acid must be added to accomplish it. The lead is so completely precipitated that no reagent is capable of detecting a trace of it in solution.

Tin.—Neutral stannous chloride in highly dilute solution is also reduced by magnesium, and metallic tin deposited. Not a trace remains in solution.

Silver.—A solution of silver nitrate, largely diluted and acidulated with *one* drop of nitric acid, is completely reduced after a few minutes.

Bismuth is likewise completely precipitated from the solution of the chloride, largely diluted and kept clear by the addition of the least possible quantity of hydrochloric acid. The same is the case with the acetate. The solution of the nitrate becomes cloudy after some time, and the result is not as exact as in the case of the other salts.

Mercury.—Mercuric chloride is very rapidly reduced, but the precipitate is generally contaminated with mercuric oxide.

Diuretic Action of Bromhydrate of Caffeine.

PROF. GUBLER cited the case of a man with organic heart disease, and whose liver was in the cirrhotic stage preceding the "nutmeg liver;" there was œdema of lower limbs and ascites. Digitalis was used without any good results; then a hypodermic injection of 0.50 grm. of bromhydrate of caffeine was given; diuresis commenced on the second day, and the quantity of urine increased up to 4½ litres; then, on stopping the use of the caffeine, the urine diminished to less than the normal quantity; the œdema, which had almost entirely disappeared, again became marked. Upon giving another hypodermic injection, M. Gubler obtained the same result. One important point to note is that diuresis following the use of caffeine is abundant and almost instantaneous, while, after digitalis, it only appears on the second or third day. Again, caffeine may be used hypodermically without producing any irritating action upon the subcutaneous cellular tissue. The number of pulsations does not diminish beyond a certain number, it becomes more regular, but the action of caffeine as a "tensor" of the circulation is inferior to that of digitalis.—*Gaz. Hebdom.*, No. 49.

Terebene.

TEREBENE has been employed lately in place of thymol, carbolic and salicylic acids, as an antiseptic dressing for wounds, and is likely to receive a permanent place among standard remedies. The following remarks of Dr. H. Hager may therefore be of interest to our readers.

Preparation: 1000 parts of oil of turpentine (French is best) are put into a retort, and the latter is immersed into ice-cold water. By means of a narrow funnel 50 parts of concentrated sulphuric acid are then introduced into the oil, *drop by drop*, and with constant gentle agitation. The retort is now transferred to an oil or sand-bath and heated, taking care, however, that the temperature does not exceed 210° C. (410° F.) The distillation is continued as long as any distillate passes over below that temperature. But this first product is still contaminated with some undecomposed oil of turpentine; it is therefore again mixed, in the manner stated above, with one-twentieth of its weight of concentrated sulphuric acid, and re-

distilled at a temperature below 210° C. (410° F.). This second distillate is agitated with solution of sodium bicarbonate, the lighter layer decanted and once more rectified. The product thus obtained, although not yet quite pure, is still sufficiently so for therapeutical purposes. In order to remove the last traces of impurity, and to produce a terebene which would be optically inactive, the distillation with sulphuric acid would have to be at least once more repeated.

Properties.—Terebene is a clear, colorless ethereal fluid, having the odor of thyme, boiling at 156° C. (313° F.),* and having a spec. grav. of 0.860. It differs from terebenthene only by its indifference to polarized light.— *Pharm. Centralb.* 1877, No. 45.

[To avoid confusion, the following explanation of the nomenclature of these and allied bodies will not be out of place here:

Many volatile oils, existing in plants, particularly those of the pine and orange families, largely or altogether consist of the hydrocarbon $C_{10}H_{16}$, called *terpene*, which name is derived from the principal representative of this group, namely, ordinary oil of turpentine (Germ. *terpen*thin-öl). This latter oil varies a good deal, both physically and optically, according to the source from which it is derived. French oil of turpentine, derived from *Pinus Pinaster* Sol. (*P. maritima* Poiret) consists mainly of a hydrocarbon, *terebenthene*, having the same composition as terpenes generally, namely $C_{10}H_{16}$. Any oil of turpentine, but particularly the French, when treated in the manner above described, or with boron fluoride, is split into two different hydrocarbons, one being the above mentioned *terebene* $C_{10}H_{16}$, and another called colophene or diterebene of the composition $C_{20}H_{32}$. *Terpin* is a hydrate of oil of turpentine, often deposited from the latter if it is mixed with water, and particularly in presence of an acid; its formula is $C_{10}H_{16},2H_2O$. Finally, *terpentin hydrate* has the composition $C_{10}H_{16}$, H_2O, being generally formed at the same time as the former.—ED. N. R.]

Result of Brown-Séquard's Treatment in Epilepsy.

JAMES B. AYER, M.D., reports in the *Boston Med. and Surg. Jour.* twelve cases of epilepsy in which Brown-Séquard's prescription (see formulæ on page 28) was employed with slight modification in some instances.

Patients were informed at the outset that regular treatment would continue two years, at the end of which time the dose would be left, in a measure, to their discretion, full treatment, except for averting threatened attacks, being no longer advisable.

Six of the patients took, during more than half the treatment, drachm doses of the following mixture after each meal:—

℞. Strychniæ sulph..... gr. i.
Acidi sulphurici dil..... ♏x.
Aquæ destillat..... ℥iv. M.

To others strychnia was given in smaller doses and for a shorter period.

In all cases the diet was carefully regulated; coffee and tea allowed in moderation; alcohol and tobacco prohibited as far as possible.

Healthy mental occupation and amusements, out-of-door exercise, and regular hours of sleep were insisted on, while everything of an exciting character was forbidden.

Results.—In four cases very satisfactory; reduced to a single attack in forty-six months, thirty-one months, twenty-two months, and sixteen months respectively.

In five cases number and severity of attacks both diminished.

In one case severity diminished, number unchanged.

In two cases no change in number or severity.

In eleven cases there has been *marked* improvement in general health and mental condition.

In one case there has been a *slight* improvement.

Over-exertion and carelessness were frequent causes of attacks occurring in patients under treatment.

Other occasional attacks could be traced to exposure to the sun, to indigestible food, or to constipation.

An extra dose of the mixture taken at the appearance of the first premonitory symptom very often succeeded in averting a threatened attack.

Considering the length of treatment and the large doses taken it is very remarkable that the evil effects of iodides and bromides have shown themselves to so slight an extent. . . .

In some cases increased drowsiness was caused by treatment. One patient slept during the greater part of ninety-six hours. Treatment was recommenced after that time without producing this result. Another, after two years' treatment, found that the night dose began to produce too profound sleep, followed the next day by headache.

The majority of the patients were troubled with dyspepsia and constipation before commencing treatment. Appropriate remedies were prescribed (in connection with the treatment for epilepsy), and in every case marked improvement followed. . . . . .

Our patients have not been disturbed and alarmed by the serious effects of bromism so graphically described by recent authors, but on the contrary there is a tendency (which I have reason to believe is rapidly increasing in the community) to underrate the danger attending this treatment, and to assume, after obtaining the prescription, the whole responsibility of treatment without consulting a physician.

If these cases remain three or four years longer under observation they will be of value in deciding whether or no this treatment, together with the best of care, can *cure* epilepsy.

*According to others at 160° C. (320° F.)

Neurine.

THIS alkaloid, existing in the yolk of egg and in bile, has lately been used with good success in diphtheria, and deserved to be further studied. Neurine has been variously identified heretofore with choline, sinkaline, trimethyl-oxyethyl-ammonium-hydroxide, hydroxethylen-trimethyl-ammonium-hydrate. It has, however, been recognized as trimethyl-vinylammonium-hydroxide: $3\ CH_3.\ NC_2H_3.\ HO$ or $C_5H_{13}NO$); and it is regarded as identical with amantine, a non-poisonous alkaloid, occurring in certain poisonous mushrooms. Its mode of preparation is the following:

From eggs.—Yolk of egg is extracted by shaking with ether, the residue is once more extracted with warm alcohol, the ethereal and alcoholic solutions are mixed together and distilled, and the residue in the flask boiled for one hour with excess of solution of baryta. The latter having been precipitated by passing carbonic acid through the mixture, the whole is filtered, the filtrate evaporated at about 80° C. to the consistence of syrup, and extracted with absolute alcohol. The alcoholic solution is then precipitated by platinum chloride, whereby a double chloride of neurine and platinum, insoluble in strong alcohol, is produced. This is collected, dissolved in water, the platinum precipitated by sulphydric acid, and the filtrate evaporated to a syrup, or dried over sulphuric acid in vacuo, or else dissolved in absolute alcohol and covered by a layer of ether. In either case the product is crystallized neurine hydrochlorate. This is then dissolved in water and macerated with freshly-precipitated silver oxide, to remove the chlorine. The filtrate, evaporated on the water-bath, or better, dried over sulphuric acid, yields pure neurine.

From Bile.—Bile is boiled with baryta solution in excess, the solution filtered, the filtrate again boiled for twelve hours with baryta-water, then mixed with dilute sulphuric acid, as long as any precipitate is produced, concentrated on the water-bath, and mixed gradually with sulphuric acid, as long as vapors of hydrochloric acid escape. The mass is then extracted with alcohol, the alcoholic solution evaporated, the residue boiled with moist oxide of lead, the filtrate deprived of lead by sulphydric acid, evaporated, and the residue dissolved in absolute alcohol, and, when necessary, filtered. It is then precipitated with platinum chloride and further treated as above stated.

Properties.—Neurine is a colorless, syrupy, hygroscopic, alkaline liquid, which absorbs carbonic acid from the air, and is converted into a carbonate. It is soluble in all proportions in water and alcohol. On boiling its aqueous solution, it is decomposed into trimethylamia and glycol. With acids it forms partly crystallizable, partly deliquescent salts. The hydrochlorate is best prepared by mixing the double chloride of neurine and platinum with potassium chloride and exhausting the dry mass with absolute alcohol. On heating anhydrous neurine hydrochlorate with very concentrated nitric acid in a glycerin-bath, it is converted into the poisonous alkaloid muscarine (naturally occurring in poisonous mushrooms), and vapors of nitrous acid escape.

Tests of purity.—Neurine, as obtained generally from (the lecithine of the) yolk of eggs, should form a clear solution in water and alcohol, and the solution should be strongly alkaline. On mixing 1 gram of it with 0.6 grams of powdered oxalic acid, only a trace of carbonic acid should be given off, and, after heating in the water-bath and cooling, a solid saline mass should remain. Viscosity would point to some adulteration, most likely glycerin. On heating it in a small retort, trimethylamia distils over.

Further reports on its use in diphtheria are shortly to be expected.—*Pharm. Centralb.*, 1877, 370.

Preparation of Quinia Tannate.

MR. STOEDER, of Amsterdam, recommends the following process: Dissolve 40 grams of quinia sulphate in 800 grams of water, containing 30 grams of sulphuric acid, and add to it a solution of 120 grams of tannic acid in 2400 grams of water. The precipitate is transferred to a linen strainer, washed, strongly pressed, dried in the air, and powdered. The yield is 140 grams of quinia tannate of a handsome light-yellow color. An entirely neutral and tasteless salt may be produced by precipitating a boiling, non-acidified solution of quinia sulphate by tannic acid, collecting the precipitate, washing and drying in the air. This product, however, contains much less tannic acid than the former. It follows, therefore, that Haaxmann's method (described in NEW REM., 1877, p. 235), according to which the precipitate is washed with boiling water, changes the composition of the salt, so that it finally contains, in 100 parts, not more than 21 parts of quinia.—*Pharm. Zeit.*, 1877, No. 97. [It has been asserted by a number of authorities that, as a medical substance, quinia tannate is practically inert.]

Local Action of Dilute Acids upon Living Tissues.

M. DUMOULIN, of Ghent, read an interesting paper on the above subject, at a recent meeting of the Academy of Medicine at Brussels, of which the following is a brief résumé:

1. The tolerance of living tissues for acids is very slight.

2. It is generic and equal for all.

3. It is in inverse ratio to the concentration of the solution, multiplied by the volume of the liquid injected.

4. The effect is proportional to the absolute quantity of a given acid, and not at all to the degree of its dilution.

5. The tolerance appears to be in direct proportion to the size of the animal.

6. As they are absorbed by the tissues, the acids coagulate the blood in the vessels, and arrest the circulation in all of the parts impregnated.

7. This absorption produces hemostasis, accompanied at first by hyperalgia, but presently by anesthesia of the part.

8. This process easily accounts for the hemostasis, hyperemia, and local anesthesia noticed for a long time by pharmacologists, after the application of astringents.

9. The alkalinity of the blood may be sufficient to neutralize the free acid, in which case the arrest of circulation will cease and the part will return to its normal state.

10. The blood may not be sufficiently alkaline to neutralize the acids, when the arrest of circulation will be followed by gangrene and the elimination of the impregnated tissues.

11. For the same solution, the extent of gangrene is proportional to the volume of liquid injected. This fact explains the relative frequence of gangrene after acidulated injections of the sulphate of quinine, the volume of which is much greater than that of the more powerful alkaloids. —*Gaz. Hebdomadaire, No.* 31.

Gentian and Rhubarb Draught,

℞. Infus. rhei.....f. ℥ ss.
Tinct. gentianæ.....♏ xxx.
Sodii bicarbonat.....gr. x.
Spir. chloroformi.....♏ x.
Aq. menth. piperitæ ad. .....f ℥ i.
Dissolve and mix.

Alkaline Colombo Draught,

℞. Sodii bicarb.....gr. x.
Tinct. aurant. cort.....♏ xxx.
Infus. calumbæ ad.....f ℥ i.
Dissolve and mix.

The above formulæ, from the pharmacopœia of St. Bartholomew's Hospital, are said by Dr. T. Lauder Brunton to "work wonders" in cases of chronic gastric catarrh with flatulence—a condition frequently seen in middle-aged or elderly women, who complain of "windy spasms, and pain in the pit of the stomach, striking through between their blade bones."

When given before meals, the alkali stimulates the secretion of gastric juice, while the bitter is supposed to lessen the secretion of mucus. The food thus becomes more easily digested, less acid and gas are formed, and the spirit of chloroform, by acting as a carminative, enables such gas as is formed to be more readily expelled. When taken after meals, this beneficial action of the alkali is lost, and it becomes injurious rather than beneficial, except in cases where excessive acidity is developed during digestion.

Purification of Valerianic Acid.

According to Lescœur, valerianic acid prepared from fusel oil is frequently contaminated with homologous acids, as well as with amyl valerianate. To remove these, the author recommends to dissolve in two equivalents of the crude acid, one equivalent of neutral sodium valerianate, by gentle heat. On standing in a cool place, the solution deposits crystals of sodium tri-valerianate, which are dried upon porous plates, and finally by pressing between blotting-paper. These yield, on distillation with sulphuric acid, a perfectly pure valerianic acid, provided that anything which distils over below 260° and over 280° F. is rejected.—*Chem. Centralb.*

On a Simple Specific Gravity Apparatus for Liquids.

BY JAMES TAYLOR.

It is often desirable to ascertain approximately the specific gravity of a liquid in cases where the hydrometer and specific gravity are not applicable, or would take up too much time. The following contrivance answers very well for this purpose, is very readily applied, even with tolerably small quantities of liquid, and easily gives results correct to the first decimal place.

Two straight pieces of glass tubing, five to ten mm. bore and two hundred and fifty mm. long, are joined by caoutchouc tubing to two ends of a T-joint, which have been bent so as to be parallel. The third end of the T-joint has a piece of caoutchouc tubing of convenient length slipped on, and this is stoppered by means of a bit of glass rod. Two small beakers, a rule, and any convenient stand arranged so as to hold the long tubes vertically, complete the apparatus.

Its application is almost obvious. On pouring a little distilled water into one beaker, and the liquid whose specific gravity is to be determined into the other, bringing the beakers under the two vertical tubes so as to immerse the ends of the latter in the respective liquids, and partially exhausting above, the liquids will rise to heights depending on their relative densities. The plug is now inserted, the lengths of the liquid columns are measured, and the specific gravity required is obtained by dividing the length of the water-column by that of the other.—*Chem. News.*

Tsa-tsin.

Nearly thirty years ago some English medical journals frequently brought reports of different physicians testifying to the valuable emmenagogue properties of a new remedy named *Key-tse-sing* or *Tsa-tsin*, purporting to come from China, and to be the leaves and flowers of a plant belonging to the natural order Ternstrœmiaceæ. After having lain in oblivion for some years, it again came into use, and is not unfrequently called for even now. As we, however, were entirely unable to trace the remedy beyond Germany, and as the supposed botanical name, by which it is distinguished on

the labels of the packages, namely, *Rhynchosia excavata* could not be traced to any authority, we have for over a year been trying to solve the riddle. In this we believe to have now at last succeeded, for we have received from one of our correspondents in Europe, who is connected with one of the largest wholesale drug-houses on the Continent, the following information:

"In regard to the article Tsa-tsin, we can only say that it is a humbug, originated by a certain quack in Leipsic. Its composition may have been different in former years, but the article at present sold, and which is recommended as a remedy in epilepsy [it is also vaunted as a prompt emmenagogue], consists of a mixture of cut herbs and flowers, chiefly of the herb of *Chenopodium ambrosiodes* L. and *Ch. Botrys* L., *Artemisia vulgaris* L., the flowers of *Anthemis nobilis* L. (chamomile), and perhaps also of *Anacyclus Pyrethrum* L. (pellitory), and of other plants. We know nothing about its effects."

On the Value of the Different Methods for Detecting Fuchsine in Wine.

A COMMITTEE, consisting of the chemists Latour, Yvon, Wurtz, and Marty, have investigated the merits of the various methods proposed for detecting fuchsine in wine, and have made a report, of which the following is an abstract:

All the methods may be comprised in two classes:

1. Direct extraction of the fuchsine by means of a menstruum which is insoluble in the wine, namely, amylic alcohol. *Roméi's* method.

2. Previous decomposition of the fuchsine by means of an alkali (ammonia or baryta); solution and extraction of rosaniline (the base of fuchsine) by an appropriate menstruum (carbon disulphide, acetic ether, benzin, chloroform); precipitation of the coloring matter upon a nitrogenized fibre, by moistening the latter, previously saturated with the rosaniline, with acetic acid. *Falières'* method, modified by *Jacquemin*, *Ritter*, *Bouillon*, *Girard*, and *Fordos*.

Roméi's method is to be recommended as a preliminary test. It is easily applied, and is perfectly reliable, if it gives a negative result. If the amylic alcohol appears colored, however, it may possibly contain fuchsine, orseille, or rosolic acid.*

To avoid mistakes, it is necessary to add to 50 c.c. of the wine 10 c.c. of solution of basic acetate of lead, spec. grav. 1.320, to heat the mixture (not to boiling), to filter, and to add to the nearly-cooled filtrate 10 drops of acetic acid and 10 c.c. of amylic alcohol. After briskly shaking, and allowing to separate, the amylic alcohol appears colorless, if the wine was pure; rose or cherry-red, if fuchsine is present; yellow, if rosolic acid is present; rose-red or violet, if the wine contained orseille. The colored amylic alcohol is separated, mixed with an equal volume of weak ammonia solution, and shaken. The amylic alcohol loses its color under all circumstances. Then if the ammoniacal layer remains colorless, the original coloring agent was fuchsine; but if the ammoniacal layer appears reddish-violet, this indicates rosolic acid; if bluish-violet, orseille had been present.

Falière's method is chiefly valuable in medico-legal examinations. It is based on the fact that wool or silk, which have been colored by fuchsine, lose their color by ammonia, and resume it by acetic acid. A wine containing fuchsine or rosolic acid may be deprived of them by shaking with ether, under addition of acetic acid. On now pouring the ethereal solution into weak ammonia water, and shaking, the fuchsine base, namely, rosaniline, remains colorless in the solution, while rosolic acid is converted into ammonium rosolate, and colors the solution reddish-violet.

Fuchsine does not remain permanently in wine; it combines with œnoline, and is deposited as a sort of resin upon the sides of the vessel. In such cases the sediment should also be examined. —*Zeitsch. Oest. Ap. V.*, 1877, 456, fr. *Journ. de Ph. et de Ch.*

* *Rosaniline* is a strong *colorless* base, containing $C_{20}H_{19}N_3$, and capable of forming salts. The hydrochlorate of rosaniline, $C_{20}H_{19}N_3HCl$, is known as *fuchsine*.

Rosolic acid, as it appears in commerce, is prepared from phenol by means of oxalic and sulphuric acids, is a resinous mass with green metallic lustre, forms a red powder, and dyes silk and wool yellowish-red. Its composition is $C_{20}H_{16}O_3$.

Orseille is archil, the well-known coloring matter of many lichens.

Solid Commercial Sulphuric Acid.

STARK'S extensive sulphuric acid works in Bohemia, which produce the so-called Nordhausen or fuming sulphuric acid on a very large scale from aluminous slate, have lately commenced to put the pure anhydrous solid sulphuric acid on the market. It is put up in tightly-soldered tin (tinned iron) boxes, which were found to answer best, because at ordinary temperature sulphuric anhydride is without action upon metals, and particularly upon tin. This form of acid is very useful, and its transportation by far less risky than when shipped in a liquid form. The constantly growing production of artificial alizarin has been chiefly the cause of this innovation, it being well known not only that large quantities of fuming sulphuric acid are required for its preparation, but also that the yield and quality of the product depend upon the degree of concentration of the oxidizing agents. —*Pharm. Centralb. fr. D. Ind. Zeit.*, 1877, 373.

Ammonia Treatment of Rheumatism.

DR. M. LEWIS reports in the *Southern Med. Record* of October 20th, his success in the use of aqua ammonia internally in the treatment of acute rheumatism; it has been so good as to warrant his recommending its trial by others.

RECENT PAPERS.

American Journal of Pharmacy. December.

G. H. CH. KILE: "Resina Podophylli." [The author tried various menstrua for exhausting the rhizome, as well as various precipitants, to ascertain the most advantageous. He found alcohol of the spec. grav. 0.930 to be the most suitable, and among the precipitants a mixture of four pints of water and two fl. ounces of hydrochloric acid. Alum gave a much larger yield, but the nature of the product was not examined.]

J. M. MAISCH, in some remarks made on a proposed new formula for Syrupus Lactucarii, states that lactucarium might probably be exhausted by dilute acetic acid (since Walz has found lactucin to be freely soluble in acetic acid), and that the acid liquid might be preserved with sugar, without alteration of any of its constituents."

D. W. ROSS: "On Garrya Fremonti." [Reports having isolated a bitter principle, which he has named garryina. It is a bitter, crystalline alkaloidal body, which gives a purple color, after a few minutes, with sulphuric acid; and with potassium chromate and sulphuric acid, first a red, then a yellow, and lastly a green color.]

Proceed. of the Med. Soc. of the Co. of Kings. Jan.

At the regular meeting, held Dec. 18, the subject of *Cod-Liver Oil* elicited some interesting remarks, from which we select the following:

Dr. Squibb said that the purity of cod-liver oil was a very important subject, on account of its very general use, and because the stomachs of those persons who needed the oil most were least able to retain it. He greatly preferred the Norwegian oil, not because it contained any medicinal property which ours did not, but because of its greater purity, on account of the manner of its manufacture. In Norway, the cod fishery ceases, by law, about the middle of April, and is not resumed until late in the fall. Great care is observed in the preparation of the oil, scarcely any heat being used, the absence of any high temperature preventing incipient rancidification. Only the very finest of that produced is exported, and for these reasons the Norwegian oil is almost invariably finer than our own.

The discovery of the fact that ether increased the flow of pancreatic fluid, which emulsifies, and thereby assists in the assimilation of fatty food, suggested to some practitioners its use with cod-liver oil, and it was found that the addition of ten drops of ether to two drachms of the oil had met with very satisfactory results. Oil has usually been given in too large doses, and one drachm three or four times a day is now thought to be sufficient in a majority of cases.

Dr. Squibb further stated that he did not think that pharmacists were overstepping the bounds of propriety by giving to the patients such directions regarding the administration of nauseous medicines as might make them more acceptable. He had found that cod-liver oil given in a five per cent. solution of gum arabic, previously poured in a small medicine glass, tended greatly toward covering the taste. Froth from porter was also an excellent vehicle, or some salt herring, eaten just before taking the oil, would make its taste imperceptible.

Mr. Lillienschiold said he had found that a little table salt sprinkled upon a spoonful of the oil would destroy its offensive taste, as well as assist in its digestion.

Mr. Close prepared an emulsion with *glyconine*, which had proven uniformly successful.

The Analyst. December.

A. WYNTER BLYTH: "Methods of separating Salicylic Acid." [Three methods may be used: 1. Dialysis, the application of which is almost self-evident. 2. Sublimation; in this case the author recommends to heat the mixture containing the acid in a flask immersed into a spermaceti bath, and to pass, towards the end of the operation, a stream of purified coal-gas through the flask. Most of the acid distills over at a temperature approaching 149° C. (300° F.). 3. Extraction by ether. This is complete, if the acid is set free by an excess of hydrochloric acid.]

Journal of the Chemical Society. November.

CH. H. PIESSE and C. R. ALDER WRIGHT: "Note on Otto of Limes." [This oil is obtained from the rind of the fruit of *Citrus Limetta* in the same way as the kindred ottos of orange and lemon, viz., by rasping the unripe fruits by rubbing them over a perforated concave metal rasp fixed over a basin. The pulp thus obtained is squeezed in a press, and the otto which exudes purified by filtration; in this state it has the peculiar sweet sharp odor characteristic of the fruit. Ottos thus obtained, are commercially more valuable than essential oils prepared by distillation from the same fruits, or from the residues left in this operation, having a more delicate perfume. The specific gravity of this oil was found to be 0.905; its boiling point is between 181° and 186° C.]

Pharmaceutical Journal and Transactions. Nos. 381-390.

G. WELBORN: "Glycerinum Tragacanthæ as an Excipient." [Reporting the results of some experiments on pill-masses made with this excipient, which was proposed by the author a year ago. Pil. Aloes et Myrrhæ and some others had remained quite soft and elastic, while Pil. Rhei Co. had become rather non-cohesive, owing to the volatile oil contained therein.)

J. B. BARNES: "Arsenical Capping Paper." [There is a magenta-colored capping paper in use which contains arsenic to a large extent. It is rose-colored, has a smooth surface, and is very nice to use, being strong, thin, and pliable, but it loses its brilliancy when exposed to the light; it is, on that account alone, not the best which can be selected for the purpose, even if it did not contain a deadly poison.]

F. M. RIMMINGTON: "Sweet Spirits of Nitre." [After some historical remarks, the author criticises the directions of the Br. Pharm., to interrupt the distillation after the first 12 fl. oz. have passed over, in order to introduce the second portion of nitric acid. Such a proceeding, when applied to the process on a large scale, involves loss of time and injures the product. In a subsequent paper he states that the spec. grav. of sweet spirits of nitre should not be higher than 0.845. During the discussion on the paper at a meeting of the Council of the Pharm. Society, both Prof. Redwood and Prof. Attfield stated that the oily substance which chloride of calcium separated from the spirits, and which is generally held to be nitrite of ethyl, contained a large proportion of aldehyde, some alcohol, and certainly less than half its bulk of nitrate of ethyl; but its exact composition is not yet known.]

TH. REDWOOD: "The Poisonous Properties of Yew Leaves." [A case of poisoning by an infusion of yew leaves having occurred in the neighborhood of London, Professor Redwood was called upon as an expert. Having established the absence of mineral and the more obvious organic poisons, but having found yew leaves partly digested in the intestines, he made some experiments on the effects of yew leaves on animals, to arrive at a positive knowledge of their effects. A rabbit, to which about 50 grains of the fresh leaves had been given, died without a struggle in five hours. In the discussion on Prof. Redwood's paper, it was suggested that the active principle of yew, namely, taxine, would turn out to be a resinous substance, like scammonin or jalopin, instead of an alkaloid, as which it is now regarded.]

W. DYMOCK: "Notes on Indian Drugs." [*Abutilon Indicum;* local name, Petaree; the Tubocuty of Goa. The bark of this plant is used in Goa as a diuretic.—*Althæa officinalis;* local name of flowers Gul Khairo, of root Risha-i Khitmi, of seeds Tukm-i Khitmi. Used as an expectorant.—*Malva sylvestris;* local, Khabazee; the fruit is mucilaginous.—*Clerodendron infortunatum;* local, Kari. The leaves are a cheap and efficient tonic and antiperiodic.—*Papaver Rhœas,* local Lala. The capsules, not the petals, are in use, but they are probably inert.—*Polyporus officinalis,* local Gharikoon. Enters into a great many compound remedies of the Mohammedans.—*Conium maculatum,* local Keerdamana. The fruit probably identical with that of Europe and America. It is generally made

into a fluid extract.—*Cinnamomum aromaticum?*, local Darchini, is the Chinese Cassia lignea.—*Sisymbrium Iris*, local Khakshir. Small red oblong seeds, regarded to be stimulant, both internally and externally (as poultice).—*Cerbera Thevet'a*,* local?; all parts of the plant abound in a milky juice, and have an acrid smell when bruised. It is identical with *Thevetia neriifolia* of the Indian Pharmacopœia, which is recommended as an antiperiodic.—*Pistacia Khinjuk*, local Gul-i Pista. The galls, which are reddish-brown when old, but bright pink on one side, and yellowish-white on the other while fresh, are used as an astringent.]

J. Moss: "Curara, the proposed Remedy for Hydrophobia." [From this article, to which we may have occasion to refer hereafter, we shall only at present quote the notice, that it has been advocated as a remedy in hydrophobia, and that the best method of administration is a hypodermic injection, made in the proportion of *one* grain of curare to 12 minims of water. This is to be administered hypodermically in such quantities at a time, as to represent ¼, ½, ¾, ⅞, or ⅛ of a grain, according to the symptoms.

Caution: Never handle curare with the fingers, as its absorption into a wound or cut may be followed by dangerous or fatal consequences.]

A. Senier and A. J. G. Lowe: "The Color of Podophyllum Resin." [The authors found that this is not due to berberina, although this alkaloid may occasionally be present. In fact, the authors believe that this alkaloid may be only an occasional constituent of may-apple root. The yellow color is probably due to the acid coloring matters of the rhizome, and may be heightened by the use of certain solutions (as alum water) as precipitants, instead of water, or highly diluted acids.]

H. Senier: "Note on Rheum officinale grown in England." [The author compared *Rheum officinale* grown in England with *Rheum Rhaponticum*, and East Indian Rhubarb. Comparison of the powders showed that the brightest was the English, the Rhapontic coming next, and the East Indian being the darkest. The amount of extract obtained by alcohol of 84 per cent. was: East Indian, 38 per cent.; Rhapontic, 21 per cent.; English, 17 per cent. The ash amounted to: East Indian, 12.72 per cent.; Rhapontic, 7.9 per cent; English, 4.66 per cent. It will therefore be seen that *Rheum officinale*, at least such as is grown in England, is not identical with true rhubarb.]

W. A. Tilden: "On Russian Oil of Turpentine." [The odor of this oil is distinct from any other oil of turpentine, it being strongly suggestive of 'pitch-pine wood and saw-dust.' It is probably not made by distilling the exuding oleo-resin, but during the distillation of wood for tar. By shaking it with soda and rectifying, it acquires a very fragrant odor, making it extremely useful for pharmaceutical purposes.]

Pharmaceutische Zeitung. Nos. 89–100.

C. Stanford: "On Iodine Manufacture" (from *Dingl. Pol. Journ.*) [The old method of making kelp from seaweeds having been found to be very wasteful, an improved process has of late years been introduced, in which seaweeds are carbonized in closed vessels. This produces a very porous charcoal, which on lixiviations readily gives up all soluble salts. The yield of iodine from kelp has thereby been doubled, and the by-products obtained, namely, ammonia, acetic acid, naphtha, tar, and illuminating gas, form an additional source of profit. The residual porous charcoal has extraordinary powers of absorption, both for deodorizing and decolorizing purposes, occupying a place between ordinary wood and animal charcoal.]

Dr. Becker: "On Condurango." [The author appears as a champion for this discarded drug. He asserts that, while it is not likely to actually cure cancer, it at least acts as a valuable stomachic, alleviates pain, and suppresses vomiting, thereby enabling the stomach to retain food.]

* See New Rem., 1877, p. 4.

Zeitschrift für Analytische Chemie. 1878. 1.

A. Sabanin and N. Laskowsky: "A Reaction for Citric Acid." [On heating in a small tube, closed by fusion as near the surface of the liquid contents as possible, a mixture of not less than 10 milligrams of citric acid in strong solution, with 2 to 3 cc. of ammonia, at 120° C. for about 6 hours, the liquid in the tube assumes a yellowish color, which, after being poured into a capsule, changes to *blue*. The latter color, after some days, turns to green, and finally fades entirely. Hence, on heating a strong solution of what is suspected to contain citric acid with ammonia in the above-mentioned manner, the appearance or failure of the blue color is a positive proof of the presence or absence of citric acid.]

Pharmaceutische Centralhalle. Nos. 39–42.

H. Hager: "A New Method to Determine Glucose and Mercury Quantitatively."

E. Liebermann: "Distinction of Wool and Cotton." [Dip the cloth into an ammoniacal solution of fuchsine, then wash it with water and dry by exposure to air. Cotton will thus be found to remain uncolored, but wool will have assumed a red color.]

M. Schlesinger: "Corrosive Sublimate contaminated with Calomel." [The author reports having received from a renowned wholesale drug house, on several occasions, supplies of corrosive sublimate, which were not entirely soluble in water, and contained 0.54 per cent. of calomel.]

C. Cailletet: "Detection of Copper in Olive Oil." [This oil is occasionally colored artificially by means of copper. This may be detected by mixing about 10 c.c. of the oil with a solution of 0.1 gram pyrogallic acid in 5 c.c. of ether. If copper is present, a brown color is developed.]

L'Union Pharmaceutique.

October. Oberlin and Schlagdenhauffen: "On the Essential Oil of Angostura Bark." [The bark of *Galipea officinalis*, or true Angostura bark, contains about 1.9% of an essential oil, together with a solid stearoptene. If rectified over calcium chloride, and then redistilled over an oil-bath, it leaves behind about 10% of a viscous mass, which is not volatile without decomposition.]

No. 11.

Patrouillard: "On Unguentum Hydrargyri Nitratis." [The author has experimented on the most suitable temperature at which the fatty substances should be, at the time when the mercurial solution is to be added. He found that high temperatures, such as they had been recommended by various observers, or prescribed by some pharmacopœias, are disadvantageous. During one trial, in summer time, he allowed the temperature of the previously melted fats to fall to 38° C. (100° F.), before adding the mercurial solution; on now stirring the mixture a steady rise of the thermometer was observed, as soon as the rise of nitrous vapors indicated the commencement of the reaction. When the temperature has risen to 42° C. (107.6° F.), it remains stationary, but very soon sinks again; and when it has fallen to 37° C. (98.6° F.), the mixture begins to thicken. It may then be poured into moulds to cool.]

Marty: "Analysis of a New Febrifuge, called Pseudo-Quinine." [Was found to be a basic sulphate of quinidia mixed with a small quantity of free quinidia. Although the author indicates by the reactions that the substance was in reality quinidia, such as we understand it (soluble in ether, giving the thalleioquin test, etc.), yet the absence of one or two other cinchona alkaloids seems not to be sufficiently established.]

Phosphide of Zinc in Hysteria.—Dr. Em. Gros speaks of a case of long-continued hysteria cured in five days by phosphide of zinc, from one- to two-fifteenths of a grain in granules having been given with food thrice daily.

To Renew Manuscripts, take a hair-pencil and wash the part that has been effaced with a solution of prussiate of potash in water, and the writing will again appear, if the paper has not been destroyed.

NEW REMEDIES.

AN ILLUSTRATED MONTHLY TRADE JOURNAL OF

MATERIA MEDICA, PHARMACY, AND THERAPEUTICS.

VOL. VII., NO. 1, WHOLE NO. 43.

FRED'K A. CASTLE, M.D., - - EDITOR.
CHARLES RICE, - - ASSOCIATE EDITOR.

PUBLISHED BY

WILLIAM WOOD & CO., No. 27 Great Jones St., N.Y.

JANUARY 15, 1878.

SUBSCRIPTION PRICE, per year, - - - $1.50
SINGLE COPIES, - - - - - .15

ADVERTISING RATES.

	1 Month	3 Months	6 Months	12 Months.
One Page	$35 00	$90 00	$150 00	$250 00
½ " or one Column	20 00	50 00	90 00	150 00
¼ " or ½ "	12 00	30 00	50 00	90 00
⅛ Column	8 00	20 00	30 00	50 00
1/16 "	5 00	12 00	20 00	30 00
1/18 "	3 60	8 00	12 00	20 00

No advertisement taken for less than 1/16 column.

EDITORIAL.

THE unexpected failure of two such prominent houses in the drug trade as Hegeman & Co., of 203 Broadway, and John F. Henry, Curran & Co., of 8 College Place, is a cause of much surprise in business circles. Both suspensions were brought about by the collapse of the business of E. J. Dunning, Jr., a broker, and the affairs are yet in too complicated a state to enable any one to form an opinion of the amount and character of the losses. Since the death of Mr. William Hegeman, in 1875, his son, Mr. S. N. Hegeman, has continued the business, but at the time of suspension, on the 10th inst., he was sick with rheumatism. It is thought that the suspension of this house would have been avoided if Mr. Hegeman had been able to attend to the matter. It is also said that the claims against this house are not very great, and will all be settled. The liabilities in the case of Henry, Curran & Co. are estimated at something less than $500,000, and are said to involve other well-known drug houses.

THE Brooklyn pharmacists are again urging upon the State Legislature the enactment of a law which will govern the practice of pharmacy in Kings county. We are of the opinion that it would make shorter work of this matter if the law were constructed to cover the needs of the whole State, for we fail to see how it can be any more essential for the people of New York City and Brooklyn to have qualified pharmacists than for those of other cities. A general effort on the part of the best men throughout the State would accomplish more good than could come from encouraging the present way of doing things by "piecemeal." Why does not some one propose and undertake the organization of a State Pharmaceutical Association? The profession in New York State are a long way behind some of their neighbors in this particular. Such an organization would be of practical assistance in securing the enactment of a general law, aside from its value in other ways. The present method of securing the enactment of special laws to cover the circumstances of each city, town, or village, is among the worst features of our State legislation, and we have a right to expect better methods of the men who are active in the present movement.

WE have made an arrangement with S. H. Wales & Son, solicitors of patents, of this city, which will give us their aid in all matters relating to patents, trade-marks, and labels. Mr. Wales was, until a short time since, one of the proprietors of the *Scientific American*, and his experience in all that relates to the affairs of the Patent Office is very extensive. Mr. Edward H. Wales has also had unusual facilities for becoming acquainted with the details of the business.

A NUMBER of theories have been advanced to account for the explosion which destroyed a large candy manufactory in Barclay street in December last, in which the force was so great as literally to tear the building in pieces and scatter the ruins about the neighborhood. At first it was thought that the steam-boiler was at fault, but examination proved that this was not the cause. Then it was suggested that carbonic oxide had escaped from an imperfect flue, and, being mixed with air, had formed an explosive compound; this, in turn, was found not to be the case. The theories now under investigation are, that the explosion may have occurred through the catching fire of the dust of corn-starch or other materials used in candy-making (such an explosion having occurred in the brewery of the Alsops, in England, and yet others in the Tradeston mills of Glasgow, Scotland; in the linoleum factory on Staten Island, eighteen months since, and quite recently in a large flouring mill in Minnesota), or that it had its origin in the process of making chlorate of potash lozenges. Although there is little evidence as yet, on the latter point, such a cause is far from being improbable. The mystery which yet surrounds the demolition of a drug store in Boston not long ago, by a similar explosion, makes the subject one of great interest to the pharmaceutical profession, and should lead to a careful study of such circumstances as may throw light upon the causes of these unforeseen calamities.

ORIGINAL AND OTHER COMMUNICATIONS.

SCENT-YIELDING PLANTS.

BY G. W. SEPTIMUS PIESSE, PH.D., F.C.S.

Cassie, Jasmine, Tuberose, and Violet.

I HAVE grouped these together because their scent can only be obtained by the *enfleurage* and *macération* processes. They are types of nearly all scent-yielding flowers. Kill the flower by boiling it in a still, and no odor can be obtained; it is only when the flower is alive that it gives out its scent. There is nearly always a certain amount of odor in pollen which, on being put into grease, imparts to it the scent of the flower from which the pollen is taken. The odor of the hop-flower seems to be wholly due to the profuse way in which it yields pollen.

Cassie (Acacia Farnesiana).

For scenting grease with cassie or violet, it has to be treated by both processes: first, by placing the flowers into the liquefied grease—an operation which must be repeated some ten or twenty times; then the grease has to be strained through muslin every day, and fresh flowers added, finally spreading the grease, when cool, on both sides of the sashes, and sprinkling flowers over it, changing them as often as may be convenient. When the blooming period is over, the grease is collected, slightly warmed, strained, and put into canisters for exportation. In obtaining scent from the jasmine and tuberose, the grease is enflowered only, as maceration, in the case of these flowers, deteriorates the product. They exhale odor for a long time when shut up in a grease-box—for such it is when one chassis is placed upon another as they are in practice, as seen in the illustration. If oil having the scent of these flowers be required, the wire gauze sash is used for the enflowering of oil upon a cotton fabric. As many as 3,000 sashes are in use at one time in some laboratories.

Cassia.

Let us now glance at the cultivation of these flowers as raised on the flower-farms of the Var (Alpes Maritimes). The young plants of cassie (*Acacia Farnesiana*) are raised from seed which are sown in beds, on which the best plants are left and the doubtful ones removed. In the third year they have generally reached the height of 2 ft. or 3 ft., and they are then planted out in fields, each tree requiring about 12 ft. square of land. Before planting the cassie the ground is well dressed with manure and deeply trenched. This plant thrives better at Cannes than in any other part of Europe. The blossoms of the cassie are successive, some being ready for plucking while others are scarcely formed; this is a great advantage to the cultivator, inasmuch as one lot of blossoms is gathered and passed through the laboratory before it is time to gather others. This acacia begins to flower after the third year and continues to grow till it reaches a height of from 12 ft. to 13 ft., with branches 6 ft. long, and a stem as thick as a man's wrist. Each full-grown tree will produce about 2 lbs. weight of flowers, the value of which is from 3s. to 4s. per lb.—say from £30 to £40 per acre ($145.80 to $19.440). The annexed illustration clearly shows the successive way in which it blooms.

Flowers, however fragrant, are not of much practical use in the perfumer's laboratory unless they are produced in succession, because, if they come altogether, there is not sufficient time for the grease to be enflowered. It is found that better results are obtained by repeating a small quantity of flowers over the grease than by enflowering a large quantity of blossoms at one time.

The Tuberose.

The tuberose (*Polyanthes tuberosa*), like nearly all the plants belonging to the same order, grows best in moist situations, or, if cultivated otherwise, the land must be irrigated. The bulbs are planted from 9 ins. to 12 ins. apart in rows, 24 ins. asunder, and a good plantation in suitable soil will last from seven to eight years. As to its odor, who is unacquainted with it? The poet says, "it comes out when the sun's away," referring, doubtless, to the marked exhalation of fragrance which takes place before sunrise. The enfleurage laboratory is always kept dark—an artificial inducement (may I say?) for the blossoms to "work hard."

The Violet.

As to violets in England, they grow anywhere and almost anyhow, but the fierce sun at Nice is but illy born by them; consequently, cultivators plant them under the shade of the orange and lemon trees, which abound there, or close to walls and houses. They are propagated by division, and after the young plants are set out and well established, they receive a good supply of liquid manure, which has to be repeated every year about two months before they begin to blossom. If the soil be very dry, the plants should be irrigated every week during the hot season. Violets are planted so as to grow in tufts or clusters about 1 ft. apart all around; this space enables the gardener to pick the flowers without treading upon the plants. Old plants have to be removed about every five years and young roots substituted, planting this time being done in the spaces which before were vacant. An acre of land during a season at Nice will yield from 180 to 200 lbs. of flowers, the value of which is from 1s. 6d. to 2s. per lb. Violets may be looked upon as an under crop, as they succeed under trees. The variety best suited for yielding scent is the double Parma. About 25 tons weight of violet blossoms are produced annually at Nice.

Jasmine.

Jasmine is obtained by grafting the Spanish variety on two-year-old plants of the Wild Jasmine (*Jasminum officinale*), that which is seen in our English gardens. Spanish jasmine thus treated produces a larger blossom, the fragrance

of which is intense. Jasmine needs a moist soil or to be so situated that it can be irrigated. It requires about 8,000 plants to stock an acre, and they do not come into full bearing until the second year after grafting; the blossoms are produced from July to the end of October, but those of August and September yield the greatest amount of odor. Every August (the jasmine season) the fields of the Var from

Branch of the Spanish Jasmine (*Jasminum grandiflorum.*)

Antibes to Cannes are alive about daybreak with women, old and young, and children, each having a little basket suspended by a strap across the shoulders, both hands being actively engaged in picking blossoms. As each basket is filled it is conveyed to the shaded laboratories, and there weighed. An acre of land will yield about 500 lbs. of blossoms during the season, the value of which is from £25 to £35 ($121.50 to $170.10). Fifty successive enflowerings of fresh blossoms, occupying as many days, produce the finest jasmine butter. —From *The London Garden.*

WARREN'S STYPTIC.

To the Editor of New Remedies.

Dear Sir:—Can you oblige me, and perhaps some others, by giving in your popular journal the original formula for making Warren's Styptic.

The little work called the "Non-Officinal Preparations, District of Columbia, 1875," has a formula in it which is evidently incorrect; it directs *dilute* alcohol to be mixed with the combination of sulphuric acid and oil of turpentine, producing an unsightly preparation which is not a mixture.

The formula given in the first edition of the above work required ʒ ij. of alcohol to be mixed with a mixture consisting of ʒ v. concentrated sulphuric acid and ʒ ij. oil of turpentine, without stating whether troy weight or liquid measure was intended.

I have seen formulas in the hands of druggists here which differ from both of the above mentioned, and also differ from each other.

The formula was devised by a Doctor Warren, of Boston, I think, and if not at hand, could no doubt be furnished by some one of your Boston subscribers.

Respectfully yours,
G. G. C. S.

Washington, D. C., Nov. 22, 1877.

[Correspondence with a number of gentlemen in Boston who would be most likely to know of the formula referred to, has proved unsuccessful. Can any readers of New Remedies furnish the information?]

ERROR IN FORMULA FOR COLOGNE.

To the Editor of New Remedies.

My Dear Sir:—I am glad you have called my attention to the formula for cologne, published on p. 278 of New Remedies, as there is an important error in it. The quantity of pure alcohol is given as *two* pints, whereas it should be *six* pints, the formula being intended to make one gallon of cologne. It would be impossible to make a presentable article with alcohol *so much* diluted; hence, the formula as given is impracticable. Indeed, the six pints of spirit will not bear the two pints of water well unless the spirit be full strength; if there is any deficiency in this respect, less water should be added. The milkiness of the compound when finished should be so slight that it will filter quite bright with once filtering, when a little magnesia or chalk has been added to the filter.

The formula given by you is correct in every other point.

Yours very truly,
Wm. Saunders.

London, Ont., Dec. 14, 1877.

Analysis of a "Chicken Powder."

A powder of a reddish color sold by a western poultry association, and recommended for "general health and condition," contained the following ingredients. The results are approximate only, no quantitative work having been done:

Ground wheat, probably "screenings"	40	parts.
" corn	5	"
Crushed oyster shells $CaCO_3$	20	"
" bones $Ca_3(PO_4)_2$	25	"
Ferric hydrate, "Colcothar" or "Subcarbonate"	5	"
Cayenne pepper	2	"
Silica, alumina, magnesia	3	"
	100	

Henry B. Parsons.

School of Pharmacy, University of Michigan,
Dec. 1, 1877.

THE REVISION OF THE U. S. PHARMACOPŒIA.

(Continued from page 343, 1877.)

Mr. Charles Mohr, of Mobile, Alabama, has sent to the Chairman of the Committee an extended reply to the circular issued by him, and printed on page 309. The following passages in it will be found of general interest:

1. I have to state that I fully approve of the general principles laid down in the circular. I particularly welcome the proposition in § 1, to abolish the present division into Materia Medica and Preparations, and to affix the name of the part of the plant used before its name. Thus a nomenclature is secured which brings a large number of different substances, but of one common character, under one common heading, permitting not only a quicker and more comprehensive review of them, but leading to a more systematic arrangement of the numerous class of vegetable substances, which by their perishable character require more of the attention and constant care in keeping on the part of the pharmaceutist than any others.

2. In my opinion I find the following drugs not entitled to a place in the new pharmacopœia:

Arum maculatum, as being properly to be superseded by our native Arum triphyllum, which possesses identical therapeutical properties, and is much easier obtained, in a fresher and consequently more active state, than the corm of the foreign plant.

Thea Chinensis I would discard for the same reasons as *Coffea arabica*. Both are articles of diet found in the house of almost every one; the preparation of their infusions as remedial agents will scarcely, if ever, be required of the pharmacist by the practitioner, and the preparation of

their active principles is out of the province of the dispenser in general.

Trifolium.—If admitted at all, it should be so under its proper botanical name, *Menyanthes*. I regard the old pharmaceutical name as a misnomer not to be introduced in the new work.

3. The following *crude drugs* mentioned under Paragraph 3 with a ?, should, in my opinion, be admitted viz.:

Chelidonium (*majus*) as a remedy of old established value and recognized by the leading pharmacopœias of the Old World.

Malva rotundifolia, Symphytum officinale Herb et Flor. Verbasc. Thapsus.—Although at present but seldom used in legitimate practice, these plants are still much valued by the people, whose wants should be somewhat regarded, to insure identity and good quality of its accustomed and cherished domestic remedies. By the side of the new remedies Coca, Eriodictyon, Grindelia, Pilocarpus, Baptisia, Cactus grandiflorus, Galium aparine, proposed for admittance, I might claim a place for the *Pycnanthemum linifolium*, new and numerous evidences of its value as a remedy in atonic dyspepsia having come to light since Dr. Vasser brought it to the notice of the profession. *Fucus vesiculosus* has come into use lately, and also Galanga, with some of our physicians. Guarana and its preparations have found much favor with the profession. The so-called viburnin, the resinoid of Viburnum prunifolium, is sometimes prescribed. *Triticum repens* is of late often ordered and used in the form of fluid extract.

Chemicals.—The claims for adoption of the following I deem rather doubtful, viz.: Acidum Thymicum, Amyl Nitris, Auri chloridum, Morphiæ hydrobromas, Platini chloridum, Potassii arsenias, Sodii arsenias, Sodii sulphovinas, and Trimethylamine. Ferri bromidum should be placed amongst the list of chemicals whose formulas for preparation are given, on account of the rapid decomposition it undergoes a short time after its preparation, no matter how carefully it is kept—a property which it shares with ferri iodidum. I have never succeeded in obtaining a sample of either compound that would yield a clear solution with water; like ferrous iodide, it should always be prepared extempore; its solution is easily and quickly obtained, and in the presence of a minute quantity of metallic iron and sugar brought to the proper consistency, when required for pill mass. Syr. Ferri Bromidi and Pilula Ferri Bromidi I have often occasion to prepare and dispense in that way.

Piperinum is still a favorite with many of the older practitioners in the South.

Propylamine is not unfrequently prescribed in this locality.

From the list of chemicals I would discard *Colchicia*. I should think it is very difficult to obtain always perfectly identical preparations from different sources—a matter of great importance with such a potent and dangerous remedy. Not mentioned in the list, but quite frequently demanded in legitimate practice, are *Bismuthi tannas* and *Narceina*; the latter has found much favor with some of our leading physicians.

Pharmaceuticals.—The value of the first three substances mentioned, namely, Acetum aromaticum, Apiol, and Argenti nitras fusa diluta, appears to be questionable. *Chinoidinum*, as it is obtained from Zimmer, for instance, should in my opinion unquestionably be admitted, no matter what the differences might be in the quantities of uncrystallizable alkaloids it contains. It is with many practitioners an esteemed antiperiodic, and, as a reliable substitute for quinine, a boon to the poorer classes.

[Mr. Mohr then states that he sees no advantage in the introduction of the alcoholic extract of jalap, as the present hydro-alcoholic extract is all that can be desired; besides, we have already the Resin of Jalap as an officinal preparation. We differ from our friend, however, in this case, since experience has shown that alcohol completely exhausts jalap of its active principle, and the addition of the watery extract, which is completely inert, only tends to make it more bulky, and causes it, when powdered, to run together. The addition of Fluid Extract of Capsicum, which Mr. Mohr thinks is not necessary, is justified by the frequent use of this preparation as an external application, the oleoresin being often rather too strong.]

Extractum Tritici repentis fluidum is very opportune. In its preparation care should be taken to ascertain the smallest quantity of alcohol required to keep it unimpaired; as a menstruum for the extraction of the drug it can be of no value. I have during the past summer made a preparation which gave satisfaction, by the following method:

Triticum repens	16 troy ounces.
Boiling water	q. s.
Alcohol	2½ fl. oz.

Digest the well contused root with one pint of water for four to five hours in a closed vessel on the steam bath. Strain, pack the dregs firmly in a tin percolator, percolate with the infusion and successively with enough boiling water until 2½ pints of percolate are obtained. This is evaporated on the water-bath to 12 fl. ozs.; at the same time the percolation with hot water is continued until the liquid runs off tasteless. This is evaporated to 1½ fluid ounces, mixed with the alcohol, and added to the above to make 16 fluid ounces extract. The same is of deep brown color, of the consistence of thin syrup, and of a sweetish, afterwards slightly bitter taste, perfectly clear; it forms no deposit, and a sample kept for several months in the store during the hottest weather has not undergone any change.

The Oleates have never been used to any extent with us; at first more frequently employed, the Oleas Hydrargyri is now scarcely prescribed.

Ol. Santalinum is quite frequently called for in prescriptions.

Syrups.—With the formulæ for their preparation, the weight of the product to be obtained should in every case be stated. The adoption of a formula for *Tr. Gelsemii* is quite an imperative necessity. *Tr. Chinoidini*, I think, should be admitted for the reasons stated. If the alcoholic solution of chinoidine is treated with an aqueous solution of citric acid to saturation, that is, until it remains clear when mixed with water, a preparation is obtained in every way nicer, miscible with water, syrups, etc., etc., more palatable, and is well retained by the stomach.

More or less frequently prescribed by the medical profession in this locality, but not as yet officinal, are the following:

Extract. fluid. Helianthemi Canadensis (fluid extract of frostwort).

Syrupus Stillingiæ comp.—Stillingia, considered as a valuable alterative, is esteemed by many of the Southern physicians. Besides the officinal fluid extract, other preparations of it are often prescribed, amongst them particularly the compound syrup. In the absence of an officinal formula, preparations differing widely in strength and composition are dispensed. It is to be presumed that if the latter is prescribed, the formula given in King's Dispensatory has been overlooked by most physicians. It seems desirable to see a standard formula adopted for the dispensing of a drug of such activity as stillingia. The syrup should be made according to the method for the preparation of syrupus sarsap. comp., that is, by the exhaustion of the root with alcohol, combined with such other vegetable alteratives as might be deemed proper, one tablespoonful representing the active constituents of 15 to 20 grs. of the drug.

Syrupus Sennæ is often prescribed or asked for by the public. A formula should be provided to secure an uniform preparation of a laxative for children. It might best be made from the fluid extract, and flavored with some carminative essential oils, affording a preparation that will keep well and be pleasant to the palate.

Tinctura Cimicifugæ is *often* demanded in prescriptions. It should be made of stronger alcohol, and, on account of its alcoholic strength, twice as strong as the tinctures ordinarily made, viz., 1 part of the root to 4 parts of alcohol.

Tinctura Phytolaccæ, as well as the fluid extract, is not unfrequently used South and West. Uniformity in the strength of the tincture is a necessity in the dispensing of a drug of such powerful effects upon the system.

Tinctura Lobeliæ ætherea of Br. Phar. is quite often prescribed, and might with advantage be transferred to our Pharmacopœia.

Aqua Sedativa (*Raspail's* Eau sédative) is very often ordered by physicians, and throughout the Southern cities is a favorite domestic remedy.

I would discard:

Liquor Chloroformi compos.—I cannot regard it otherwise than as an ambiguous imitation of a nostrum, the composition of which has never been divulged.

Amongst *processes* it is of great importance to add to that for

Acid. phosphoric. dilut. the direction, to treat the solution, before being finally diluted, with sulphuretted hydrogen. I have never yet found a phosphorus free from arsenic, but in most cases containing such large quantities of that element as to render the preparation made from it absolutely poisonous, if not freed from it. As indicated in the circular, its strength should be increased.

Ferri iodidum.—As already stated under ferri brom., it should always be prepared fresh when required.

Ferri et Potassii tartras.—Following the directions of the present Pharmacopœia, I have never yet succeeded in getting a solution that would not form a copious precipitate of the insoluble yellowish ferrous tartrate, the removal of which by filtering must of course diminish the quantity of iron in the product to a considerable percentage. I was careful, during the heating and evaporation, to keep strictly within the prescribed limits of temperature, a proceeding which makes the process very tedious. To a certain extent it can be prevented by adding potassic carbonate to perfect neutralization of the solution. By the formula of the present Pharmacopœia an excess of potassic bitartrate is added positively injurious, favoring the formation of insoluble compounds. But even if this is avoided, and the quantity taken be in exact proportion to the ferric oxide, ferric tartrate will be precipitated on the cooling of the solution. Duflos contends that precipitation must take place until three-quarters of the ferric tartrate is eliminated, and the only stable and soluble combination between one of ferric tartrate and four of potassic tartrate is left in the solution. Hager avoids the difficulty by diluting the warm solution with water containing 15 per cent. of liquor ammoniæ in a quantity sufficient to prevent the formation of the insoluble salt. The scale preparation is much used, and can be regarded as one of the most important of the ferruginous compounds in pharmacy. A formula should be adopted by which the greatest percentage of iron is secured, and I have here stated my experience, in the hope, that some one will take up this subject for investigation.

Italian Pharmaceutical Association.—At the last meeting of this Society, at Florence, it was resolved to organize a more comprehensive body, the "Italian Federal Pharm. Association," for which the following officers were elected: Prof. Luigi Guerri, President; Sig. Cesare Pratesi, Vice-Pres.; Dr. Enrico Pegna, and Dr. Guglielmo Romei, Secretaries.

The Consumption of Horseflesh in Paris is on the increase. During the first six months of 1876, 4,462 horses, equal to 803,500 kilos of serviceable meat were butchered. In the same period of 1877, the consumption rose to 5,283 horses, yielding 959,730 kilos of meat.

A New Tanning Material, called "jaft" or "djaft," has been introduced at Rotterdam, from Persia. It is the bark of the Kurdistan oak (*Quercus Valonea*). Analyses made at Rotterdam showed that the sample contained 18½ to 19 per cent. of tannin. It is offered at 35 francs per 100 kilogs.

Chestnut-flour Glue. — Chestnuts, deprived of their brown skin, are crushed between rollers to a coarse mass, the latter rubbed through a fine wire-sieve placed into water, and the fine deposit of starch separated and dried. This yields a very handsome, transparent, and liquid glue of great tenacity.

BIBLIOGRAPHY.

OUTLINES of MODERN CHEMISTRY: Organic. Based in part upon Riche's Manuel de Chimie. By C. GILBERT WHEELER. Chicago: 1877. 8vo, pp. 231.

THE author first gives a concise, but lucid account of the classification of organic substances and the principal homologous series; he then discusses the hydrocarbons and their chief derivatives, the various types of alcohols, their secondary products, uses, and physiological action; simple and compound ethers, aldehydes, and acids. Up to this point neither the manner of treatment, nor the statements brought forward, can be taken exception to. The next following chapters on alkaloids, fats, sugars, glucosides, etc., are likewise well written, and a judicious selection from the almost countless number of these compounds has been made. But in this portion of the book we notice some shortcomings in the shape of omissions of important bodies, and in erroneous statements regarding others. For instance, opium is said to be yielded by incisions into the *seeds* of poppy; its surface is said to be brown, and the interior to have a fawn color, which description certainly does not correspond with that of good fresh opium. The formula of Codeia is wrong, O_{21} being printed instead of O_{3}. Thebeia should be Thebaia. The important alkaloid cinchonidia is only mentioned *en passant*. Strychnia and brucia are not extracted from the fruit, but from the seeds of Strychnos Nux vomica, although the pulp of the orange-like fruit contains some strychnia. The veratrum alkaloids are not correctly stated, one of them being named "colchinia." Aconitine and Digitaline, of the author's description, are not definite alkaloids. Emetia is ascribed to sources which are badly misspelled. Caffein, cantharidin, and picrotoxin are not alkaloids. The botanical names throughout the book are frequently wrong or misprinted. If these errors are removed in a future edition, we think the book will be quite valuable as a text-book for beginners.

A GUIDE TO THERAPEUTICS AND MATERIA MEDICA. By ROBERT FARQUHARSON, M.D., Edin., F.R.C.P. Lond., etc., etc. Enlarged and adapted to the U. S. Pharmacopœia, by FRANK WOODBURY, M.D. Philadelphia: Henry C. Lea. 1877. 12mo, pp. 410.

NEXT to the convenient size and neat appearance of this work, the points which attract attention are the alphabetical arrangement of the matter and the system of placing the accounts of the therapeutical and physiological action of each remedy in adjoining columns. The following sections are established: General Rules for Prescribing, and Description of the Plan of Arrangement of the Work. I. Remarks on Certain Classes of Remedies; II. Remedies Comprised in the Primary List of the U. S. Pharmacopœia and their Preparations; III. Remedies in Frequent Use, but not Included in the Primary List, U. S. P. These are followed by a suggestive series of questions, for the consideration of students, which will bear elaboration, and can be made of great value. The course pursued throughout the work, of giving the name, synonym and definition of each article together with the officinal preparations and doses of each, furnishes the student with information for which he formerly was obliged to consult the Dispensatory or Pharmacopœia. Pharmacopœial processes are not mentioned, but under the head of "Dose and Administration" a number of approved formulæ are given, to illustrate the mode of using each remedy. Just now, while the adherents of the school of physiological therapeutists are prosecuting observations with such zeal, the opportunity afforded by Dr. Farquharson's work to take account of our progress in this direction and compare the results with those arrived at in other ways is very welcome, and should secure for the book a large demand.

In spite of the considerable amount of labor performed by the American editor, a number of errors have been noted in

the text. They are such as works of this kind are especially liable to, but are not of sufficient number or importance to mar the generally valuable character of the book, or prevent its becoming a popular addition to our stock of therapeutical literature.

MATERIA MEDICA FOR THE USE OF STUDENTS. By JOHN BIDDLE, M.D., Professor of Materia Medica and Therapeutics, etc. Eighth edition, revised and enlarged, with numerous illustrations. Philadelphia: Lindsay & Blakiston. 1878. 8vo, pp. 462. Price, $4.00.

THERE is not much that needs to be said for a work that goes through its several editions with the rapidity of this one, that is looked upon as a standard in most of the medical schools of the country. We note, however, that this edition has been recast and partially rewritten, with the addition of many new articles, and that it continues to merit the reputation that it has earned.

THE ELEMENTS OF THERAPEUTICS. A Clinical Guide to the Action of Medicines. By DR. C. BINZ, Professor of Pharmacology in the University of Bonn. Translated and edited by EDWARD L. SPARKS, M.A., M.B., Oxon., etc. New York: William Wood & Co. 1878.

THE reputation which Dr. Binz has acquired as an observer and a writer on therapeutics should prevent any doubt regarding the valuable character of this work. It is the fifth German edition that has been translated by Dr. Sparks, and a considerable amount of new matter which the author has added, together with the reading which he has given of the proof-sheets, make it equivalent to another edition. To adapt the work for use in Great Britain and this country, drugs, peculiar to the British and United States Pharmacopœias, have been added by the editor.

The substances are treated of in classes arranged as follows: I. Nervine Medicines whose Special Purpose is to Produce a Sedative Effect; II. Nervine Medicines whose main Action is Stimulant; III. Æthereal Oils; IV. Demulcent Medicines; V. Astringents, Bitter and Alkaline Medicines; VI. Remedies Promoting Tissue Growth: VII. Diathetic and Antiseptic Medicines; VIII. Antiseptics Proper; IX. Medicines which Reduce Fever; X Emetics, Purgatives, Diuretics, Diaphoretics; XI. Caustics; XII. Mechanical Remedies, and an Appendix. In describing each article, its officinal and common name are given. Next follow a description of the drug and of its action under various circumstances when given to a healthy person, and then its use Lastly are given the officinal preparations into which the drug enters, and a very valuable sort of information in this connection is the proportion in which the drug is present in the completed preparation, *e.g.*: "(1) *Trochisci Acidi Tannici* (½ gr. in each lozenge, B. P.; 1 gr. in each, U. S.)," or "(3) *Infusum Cinchonæ*, B. P., Bark, water; 1 in 20). *Dose*, ʒ i.–ij. U. S. contains aromatic sulphuric acid. (Strength, 1 in 16.) *Dose*, ʒ ss.–ij."

In most instances the editor has given the equivalent of the metric weights and measures in the standards more commonly used in England and the United States, but in some cases, in which the proportions could not well be expressed otherwise, the metric system has been retained and a table for calculating the amounts added to the appendix.

The most striking features of the work are the conciseness with which the author expresses what is known on each subject, and a style which gives the subjects a freshness not commonly found in text-books on therapeutics or in lectures on this topic. If Professor Binz is as successful in his lecturing as he is in writing, he can complain of no lack of attention from his audience. A superficial inspection discovers the following comparatively recent additions to our materia medica: Hydrobromic, chrysophanic, salicylic, and succinic acids; amyl nitrite, aloïn and aloëtin, ammonium succinate, apomorphia, araroba, chloride of gold and sodium, Bael fruit, bichloride of ethylene, butyl-chloral, saccharate of lime, ergotin, Goa powder, iodoform, jaborandi, extract of malt, pseudoaconitin, salicylate of sodium, salicin, thuja, etc.

There are some peculiarities which we hope to see eliminated in future editions, viz., the system of paging and want of uniformity in the style of headings, both of which would render reference somewhat easier. Since the remedies are arranged in classes, either a running heading or a more complete table of contents would aid in locating the several portions of the work. We are much mistaken, however, if the work in its present shape does not become a general favorite with both students and practitioners. It will also help, we think, to advance the movement to establish an universal pharmacopœia.

THE CHEMIST'S AND DRUGGIST'S DIARY. 1878. Tenth edition.

THIS annual publication of the London *Chemist and Druggist* has again reached us. It has not only a liberal diary interleaved with blotting paper, but contains a great variety of tables and facts of special interest to chemists and druggists. Although the latter are generally better adapted for use in Great Britain than in the United States, this is by no means exclusively the case, and the American subscribers will find the diary a welcome gratuity.

YEAR-BOOK OF PHARMACY, comprising Abstracts of Papers Relating to Pharmacy, Materia Medica and Chemistry, contributed to British and Foreign Journals from July 1, 1876, to June 30, 1877. With the Transactions of the British Pharmaceutical Conference at the Fourteenth Annual Meeting held at Plymouth, August, 1877. London: J. & A. Churchill. 1877. 8vo, pp. 734. 10*s.*

WE have the pleasure of again announcing the publication of this valuable annual, which in every way does great credit to the association issuing it and those who are more immediately concerned in its production. The contents, this year, comprise an introductory chapter in the progress of pharmacy; 268 pages devoted to abstracts of valuable papers, which have appeared during the year; something over 50 pages of notes and formulæ, and 300 pages containing the transactions of the Conference. Without any desire to make comparisons with the transactions of our own National Association, in other respects we could wish that we might have the latter as promptly published as this one is.

SELECT PRACTICAL NOTES AND FORMULÆ Relating to Pharmacy, Materia Medica, Chemistry, Therapeutics, etc., with Hints on Dispensing, originally compiled from British and Foreign sources for *Mather's Monthly Price Current*. By W. CANNING. London: John Davis. 12mo, pp. 184. 3*s.* 6*d.*

THE foregoing title gives a fair indication of the scope of this work. Its author, the present editor of *Mather's Monthly Price Current*, and formerly publisher of the *Chemist and Druggist*, is well qualified to make a selection of matter such as should go into a handy-book for druggists' and physicians' use. Both classes will find abundant material in it to compensate them for the little outlay required to purchase the work.

PROCEEDINGS OF THE MICHIGAN PHARMACEUTICAL ASSOCIATION at its Fourth Annual Meeting, Detroit, Oct. 17, 1877. 8vo, pp. 39.

THE Committee on Legislation make a rueful report of the interest taken by the Committee on Public Health of the Michigan Legislature, in the attempts which were made to secure the passage of a Pharmacy bill. The election of officers resulted in the choice of Mr. Ottmar Eberbach, of Ann Arbor, for President, and Paul Plessner, of Detroit, Corresponding Secretary. Prof. A. B. Prescott gives a very good résumé of the Progress of Pharmacy. Frederick von Walhausen, of Bay City, gives a partial report on the properties of Phytolacca decandra, and L. H. Wagoner, of Muskegon, a similar one on the extent to which powdered capsicum, as found in the drug-market, is adulterated. Mr. Volney M. Spalding presents an interesting table of the drugs indigenous to the State of Michigan, to which Mr. F. Stearns, of Detroit, adds a supplement. Mr. Henry B. Parsons, of the School of Pharmacy, University of Michigan,

read a volunteer paper on berberina phosphate, to which we hope to give future attention.

In the answering of queries which followed, the relative merits of cinchona alkaloids received considerable attention. In regard to the employment of crystallized chloral hydrate in the State, it was affirmed that although it had been stated that the loose crystals should be the only form dispensed, no one present was in the habit of using it; the majority, even, having never seen it, the use of the crust form being almost universal. Dr. Wade's original formula for preparing hydrobromic acid was accepted as the authoritative one.—[NEW REM., Nov., 1877, p. 350.]

The next meeting will take place on the 16th of October next.

MEDICINAL PLANTS. Being Descriptions, with Original Figures, of the Principal Plants employed in Medicine, and an Account of their Properties and Uses. By ROBERT BENTLEY, F.L.S., and HENRY TRIMEN, M.B., F.L.S., etc. Philadelphia: Lindsay & Blakiston. Price per part, $2.00.

THE parts of this beautiful work which have recently come to hand contain the following illustrations and descriptions:

PART 17.—Varek (*Acacia Senegal*), the source, according to Schweinfurth, from which the best gum arabic is derived; Khair (*Acacia Catechu*); Spurge Laurel (*Daphne Laureola*), not officinal in the U. S. P., but in Europe the bark, under the name of Mezereon bark, is somewhat used; Spurge Flax (*Daphne Guidium*), found in Europe (southern), Madeira, and the Canaries, and is similar in properties to the foregoing; Common Oak (*Quercus Robur*), the Gall Oak (*Quercus infectoria*); Sweet Flag (*Acorus Calamus*.

PART 18.—*Toddalia aculeata*, a native of India and South China. The root-bark (unofficinal) is the part used, and is a stimulating tonic; *Soymida febrifuga*, another habitant of Central and Southern India. [See NEW REM., p. 208, where it is mentioned under the name of Rohun bark]; Clove (*Eugenia caryophyllata*); *Diospyros Embryopteris*, native of India, and used as an astringent; Persimmon (*Diospyros Virginiana*); Matico (*Piper angustifolium*); Long Pepper (*Piper longum*); Black Pepper (*Piper nigrum*); Sandal Wood (*Santalum album*).

PART 19.—Senna (*Cassia obovata*); Alexandrian Senna (*Cassia acutifolia*); Arabian Senna (*Cassia angustifolia*); Flowering Dogwood (*Cornus Florida*); Arnica (*Arnica montana*); Wild Yellow Jessamine (*Gelsemium nitidum*); Meadow Saffron (*Colchicum autumnale*).

This series is of especial interest from the proportion of newly acquired drugs described.

WHAT ANÆSTHETIC SHALL WE USE? By JULIAN J. CHISHOLME, M.D., etc. A Paper read before the Baltimore Academy of Medicine. 8vo, pp. 23. Privately published.

WE have already referred to the above paper on page 334.

THE SANITARY CONDITION OF PORTLAND. A Report Presented to the Maine Medical Association, 14th June, 1877, by FREDERICK H. GERRISH, M.D., etc. Reprinted from the Proceedings. 8vo, pp. 30.

THE paper of Dr. Gerrish shows that, with its favorable location for sanitary conditions, there remain many things to be done which will increase the health of the inhabitants. A plea is made for a State Board of Health and a better system than the present one of registering the causes of death.

A CASE OF SYPHILITIC APHASIA. By L. P. YANDELL, JR., M.D. Reprinted from the Louisville Medical News.

THIS and an accompanying clinical lecture on aphasia contain a number of interesting cases of the affection due to various cases.

VICK'S ILLUSTRATED CATALOGUE AND FLORAL GUIDE for 1878. JAMES VICK. Rochester, N. Y.

CONTAINS a great deal of information of value to those who cultivate flowers or garden plants for either pleasure or profit.

A UNIVERSAL PHARMACOPŒIA. By EDWARD H. SQUIBB, M.D., of Brooklyn. Extracted from the Transactions of the International Medical Congress. Philadelphia, Sept., 1876. Privately published. 8vo, pp. 5.

PRESENTS some of the apparent difficulties in the way of such a work, not with a view to opposing it, but to direct attention to some points on a side of the question which has not hitherto been sufficiently considered.

Dr. Squibb expresses serious doubts of the practicability of the scheme.

ILLUSTRIRTER WEINBAU-KALENDER für das Jahr 1878. An Illustrated Almanac issued by BARON A. W. BABO, the Editor of the "*Weinlaube.*" Vienna. 8vo, pp. 128.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY for the year 1877. 8vo, pp. 168.

THE eleventh annual meeting took place at Battle Creek on the 9th of May; a number of volunteer papers, chiefly on gynæcology and obstetrics, being presented in addition to the ethical and routine business. Foster Pratt, M.D., of Kalamazoo, was elected President, and Geo. E. Runney, of Lansing, Secretary. The next meeting will take place at Lansing, on the 15th of May next.

CATALOGUE OF THE LEADING DAILY, WEEKLY, Religious, Agricultural, and other Periodicals published in the United States and British Provinces.

THIS has been published as a guide to those who desire to make a judicious choice of mediums for advertising, and will be furnished on application to W. W. Sharpe & Co., 25 Park Row.

BEITRÄGE ZUR CHEMIE DER WICHTIGERN HARZE, GUMMIHARZE UND BALSAME. By EDWARD HIRSCHSOHN. St. Petersburg, 1877. pp. 48, 8vo.

UEBER DIE ALCALOIDE DES DELPHINIUM STAPHISAGRIA, by PROVISOR MARQUIS. 8vo, pp. 30.

ZUR QUANTITATIVEN BESTIMMUNG DES VERATRINS UND PHYSOSTIGMINS. By E. MASING, of Dorpat, Halle a. S. 12mo, pp. 8.

BEITRÄGE ZUR CHEMIE DER EICHEN-, WEIDEN-, UND ULMENRINDE. By EDWIN JOHANSEN, Halle a. S. Sm. 12mo, pp. 39.

UEBER DIE BESTANDTHEILE DES MUTTERKORNES, by PROF. DRAGENDORFF, of Dorpat. 12mo, pp. 14.

DIE HERBSTZEITLOSE IM BIER. By PROF. DRAGENDORFF, of Dorpat, Frankfurt a. M. 12mo, pp. 23.

Contains a detailed report, by Prof. Dr. G. Dragendorff, on a chemical examination of a certain beer for colchicia and other foreign ingredients, all of which were found absent.

UEBER CALCARIA PHOSPHORICA, by E. HIRSCHSOHN. 8vo, pp. 11.

[For the above six pamphlets we are indebted to the courtesy of Professor Dragendorff. They are the results of work done in the Pharmaceutical Institute at Dorpat, Russia.]

NEW BOOKS.

Loebisch (Dr. W. F.). Anleitung zur Harn-Analyse für Praktische Aerzte, Apotheker und Studierende. With 26 illust. 8vo. Wien, 1878. $1.90 gold.

Luerssen (Dr. Chr.). Medicinisch-Pharmaceutische Botanik. Handbuch der Systematischen Botanik für Botaniker, Aerzte und Apotheker. 8vo. Leipzig, 1877, part 1. $0.90 gold.

(A most excellent work, richly illustrated, and to be completed in about 12 parts.)

Buignet (H.). Pharmacie, Histoire Naturelle Médicale, Matière Médicale, Thérapeutique. 8vo. Ill. 16fr.

Fleischer (Emil). A System of volumetric Analysis. Translated, with notes and additions, from the second German edition, by M. M. Pattison Muir. 8vo. London. $2.50 gold.

Soubeiran (Dr. J. L.). L' École du Pharmacien. Vol. 1. Traité de Botanique élémentaire. 914 ill. 4fr.—Vol. 2. Éléments de Matière Médicale. 547 ill. 4fr.—Vol. 3. Traité de Minéralogie, de Géologie et des Eaux Minérales. 210 ill. 4fr.—3 vol. 12mo. Paris, 1877.

Joclét (V.) Vollständiges Handbuch der Bleichkunst. 8vo. Wien. 1877. Illust. 5 M.

Harz (Dr. C. O.) Grundzüge der alcoholischen Gährungslehre. 8vo. München, 1877. $0.60 in gold.

Stammer (Dr. Karl.) Sammlung von Chemischen Rechnungsaufgaben. 2d ed. 12mo. Braunschweig. 1878. 60 cts. gold.

Stammer (Dr. Karl). Antworten und Auflösungen zum Vorigen. 12mo. 90 cts. gold.

Thorpe (T. E.) and Muir (M. M. Pattison). Die qualitative Analyse. 8vo. Berlin. 1878. $1.65 gold.

Schnacke (Dr. G. A.). Wörterbuch d. Prüfungen verfälschter, verunreinigter, und imitirter Waaren. 8vo. Gera. 1877. $3.00 gold.

Lang (V.) Die Fabrikation der Kunstbutter, Sparbutter und Butterine. 8vo. Wien. 1 M., 80.

Blue Books (Official Documents published by order of the British Parliament):

Army Medical Department. Report for 1875, 2/4.
East India Chinchona Cultivation; fol. pp. 290, 2/.
Philadelphia Exhibition. Report, Vol. I., 5/6.
Do. Plans, 6/0.
Do. Reports, Vol. II., 4/4.
Science and Art. Twenty-fourth Annual Report, 8vo. 3/6.

Göring (Theod.). Über die Parabrommetasulphophenylpropionic acid, and the Metasulphophenylpropionic acid. 8vo. München. 1877. 32 pp. $0.25.

Künste (Guido). Kohlenstoffskizzen. 8vo. Münch. 1877. $0.45.

Imbert-Gourbeyre (Dr.). Mémoire sur l'Arnica montana suivi de quelques remontrances à M. le prof. Fonsagrives. 8vo. Paris. 1877. 2f. 50.

Bouchut (E.) et Després (Armand). Dictionnaire de médecine et de thérapeutique médicale et chirurgicale. 3me ed. 906 fig. and 3 maps 4to. Paris. 1877. 25f.

Wheeler (C. G.). Outlines of Modern Chemistry, Organic, based in part upon Riche's Manuel de Chimie. 12mo, pp. 231. Chicago. $1.25.

Bernays (A. J.) The Student's Guide to Medical Chemistry, with engravings. Churchill & Co.

Friedberg (W.). Die Fabrikation der Knochenkohle und des Thieröls. 13 illust. 8vo. Wien. 2 M.

Al Pias (Antonio). Die Verwerthung der Weinrückstände. 20 illust. 8vo. Wien. 2 M. 50.

Fehr (J. H.). Die Artikel des täglichen Bedarfs für Gewerbe, Haus- und Landwirthschaft. (Announced).

Mierzinski (Dr. Stanislaus). Die Desinfectionsmittel. Illustr. 8vo. Berlin. 1877. 2 M.

Pick (S.). Die Alkalien. Ein Handbuch f. Färber, Bleichen Seifensieder, Glas-Fabrikanten,. Apotheker und Droguisten. 24 illust. 8vo. Wien. 4 M. 50c.

Davois Platz: A New Swiss Retreat for Invalids and Tourists. 32mo, pp. 40. Sewed. Sweeting. 1*s.* 6*d.*

Wills (G. S. V.). Manual of Vegetable Materia Medica, with 105 colored illustrations. Post 8vo, pp. 144. Simpkins. 8*s.* 6*d.*

Richardson (Benj. W.). The Action of Alcohol on the Body and on the Mind. 16mo, pp. 57. 20c. Nat. Temp. Soc.

Lohmann (Paul). Hülfstabelle für die Unterschung der Chemischen Praeparate der Pharm. Germ. 8vo. Berlin, 1877.

Eymery-Heroguelle (Dr.). Étude du Gelsemium sempervirens et de son action dans le fraitement des Névralgies. Thèse soutenue à l'École de Médecine de Paris. 1877.

Miller (William A.). Elements of Chemistry, Theoretical and Practical. Longmans.

Armstrong (H. E.). Organic Chemistry. Part III. 5th ed., revised, with additions. Longmans.

Stocken (James). Elements of Dental Materia Medica and Therapeutics, with Pharmacopœia. 12mo, pp. 144. Churchill. 3*s.* 6*d.*

Wills. Elements of Pharmacy, designed as a Text-book for Students Preparing for the Pharmaceutical Minor Examination. Post 8vo, pp. 119. Westminster College of Chemistry. 6*s.* 6*d.*

Elderhorst (W.). Manual of Qualitative Blowpipe Analysis and Determinative Mineralogy. 6th ed., enlarged. Edited by H. B. Marson and C. F. Chandler. Illust. Cr. 8vo, pp. 312. Philadelphia.

Monckman (James). Combined Hand-book and Note-book for Students of Inorganic Chemistry. 12mo, pp. 56. Simpkins. 1*s.*

Parsons (F. T.). Vital Magnetism: Its Power over Disease. pp. 220. Adams, Victor & Co. $1.25.

Fox (Cornelius B.). A Hand-book of Analysis of Water, Air, and Foods for the Medical Officers of Health. Churchill & Co.

Kidd (Joseph). The Principles of Therapeutics. C. Keegan, Paul & Co.

Kingzett (Charles T.). Animal Chemistry; or, the Relation of Chemistry to Physiology and Pathology. Longmans.

Payen. Industrial Chemistry: A Manual for Manufacturers and for Use in Colleges and Technical Schools. Being a Translation by Dr. J. D. Barry, of Professors Stohlmann and Engler's German Edition of Payen's *Précis de Chimie Industrielle.* Edited thoroughly and supplemented with Chapters on the Chemistry of the Metals, by H. B. Paul, Ph.D. Longmans.

Bouyer (L.). De l'emploi des préparations arsenicales dans le traitement des maladies du cœur. J. B. Baillière & Fils, Paris. 1fr.

Flückiger & Hanbury. Histoire des drogues d'origine végétale. Traduit de l'anglais et augmenté de très nombreuses notes par le Dr. Lanessan, professeur agrégé d'histoire naturelle à la faculté de médecine de Paris, avec 350 figures dessinées pour cette traduction par A. Hugon. 2 vols. 8vo. O. Doin, Paris. 25fr.

This is a new French edition of the *Pharmacographia*, the text of which has been carefully revised by Prof. Flückiger himself. Since the English edition is out of print, and the statement has been made that no further edition in English will be issued, the attention of our readers is particularly directed to this important and indispensable work.

Paulier (B.). Manuel de thérapeutique. 18mo, 1,012 pp. O. Doin, Paris. 10fr.

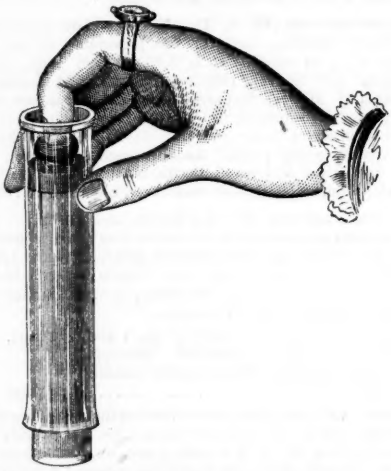
Fontaine (Dr.). Effets physiologiques et applications thérapeutiques de l'air comprimé. 8vo, pp. 237. G. Baillière, Paris. 6fr.

Lambert (I.). Étude clinique et experimentale sur l'air comprimé et raréfié dans les maladies des poumons et du cœur. 8vo, pp. 87, aves 8 planches. J. B. Baillière & Fils, Paris. 3fr.

TRADE NOTES.

"Glycerinated Camphor-Ice."

CARLTON & Co., of 145 Eighth St., New York, prepare a camphor-ice which is not only of superior quality, but is put up in novel shape admirably adapted for the toilet-stand or pocket. A mass of the cosmetic resembling a section of a candle is slipped inside a glass tube where it is retained by a stopple at each end. By pressing the knob on the smaller of the two stopples the other stopple is pushed out, and the camphor-ice is made to project from the tube, as shown in the illustration. The glass tube seems not only to keep the



cosmetic from being soiled, or from greasing other things, but may be used as a handle to facilitate its application. Every one who has seen or used our sample has been pleased with it.

Improved Extract of Malt with Cod-Liver Oil and Phosphorus.

PROFESSOR MARKOE, of Boston, recently called attention to the fact that extract of malt afforded one of the best means for emulsifying cod-liver oil, and a short time previously Dr. Squibb had called attention to cod-liver oil as a substance best calculated to protect phosphorus from oxidation and favor its administration in the small doses required.

The Trommer Extract of Malt Company, of Fremont, Ohio, the excellence of whose productions we have already had occasion to comment upon, send us a sample in which all three of these important agents are combined. Equal parts of pure Canadian barley-malt and fresh Norwegian cod-liver oil have added to them $\frac{1}{100}$ of a grain of phosphorus to the dose (1 tablespoonful.)

This combination offers superior advantages as a remedy in a number of diseases characterized by disturbances of nutrition and innervation, and the reputation of the manufacturers is a guarantee of the care taken to furnish a reliable article.

Ricksecker's Bay-Rum Shaving Stick.

THEO. RICKSECKER, of 146 William St., is out with another novelty, viz.: A stick of bay-rum shaving soap, enclosed in a neat box, from which it may be made to protrude by pressing against a false bottom through a hole in the true bottom of the box. The soap is finely flavored, and is said not to dry on the face, but to retain its moisture and make "a rich, creamy, healing lather." Twenty-five cents is the retail price.

ANALYSES OF PHARMACEUTICAL CHEMICALS AND PREPARATIONS.

We are now prepared to send samples for the March prize to such as may desire to compete for it. Answers must be received before the 20th of February, and be accompanied by a sealed envelope containing the name of the writer, and designated by a device or motto, which is also to be placed, instead of the writer's name, upon the report of the analysis.

Persons to whom a prize has been awarded are requested to send to the publishers the title of any book or books they may desire, not exceeding in the aggregate the value of $10.00.

The prize this month will be awarded to GEO. W. MCDONALD *("Icarus"), of Kalamazoo, Mich.*

The January sample contained equal weights of citric acid ($H_3C_6H_5O_7.H_2O$) and tartaric acid ($H_2C_4H_4O_6$); both acids were pure enough for any pharmaceutical use, but both contained a little sulphuric acid.

A few words upon the identification of organic compounds ("proximate organic analysis") may be of service to some contestants, and will, therefore, be their own apology. In the study of organic substances the student will, at the outset, be somewhat perplexed because of the fact that there are at present no comprehensive, tabulated schemes for the identification of all organic compounds. There are, it is true, methods for separating many substances of similar or unlike properties; but these methods are very often fallacious, if some other organic compound is present. Among the various ways of determining the composition of organic substances may be enumerated the following:

I. The *physical* properties and peculiarities of organic compounds are often of very great value in their identification. For instance, the color, odor, and taste of cayenne pepper, or of ginger, when considered together, are strong enough evidence to lead the analyst to think them present, and his task is now to confirm, by chemical or microscopical tests, what his senses have taught him.

II. The *solubility* of the substance is another very important characteristic. Among the solvents most used are water, alcohol, ether, chloroform, benzole, petroleum naphtha, carbon disulphide, oil of turpentine, etc. It will be observed that these are all "neutral solvents," that is, they dissolve substances without chemically decomposing them, exactly as water dissolves common salt, but not as acids dissolve metals and oxides. The separation of organic proximate principles is often effected by use of these same "neutral solvents," although acids, alkalies, and solutions of various salts are also much used.

III. A *microscope* of moderate power is of great service; even a *pocket lens* is often quite a help.

IV. *Distinctive chemical tests* must usually be the chief reliance. These tests are scattered through a large number of books on organic chemistry, pharmacy, and botany, and not a few may be found in NEW REMEDIES. The student will find that a careful reading and comparison of the statements in the books at his command will usually reward him with some means of deciding upon the nature of the substance examined. In applying chemical tests for organic compounds great attention to *conditions* is necessary; the disregard of any of these conditions is often the cause of failure or of false analyses. Among these conditions are, the concentration of reagents or of solutions tested, the degree of heat and the length of its application, the presence of interfering substances, and the time allowed for the completion of reactions.

With these remarks on organic analysis in general, we now turn our attention to the problem presented, viz.: the detection of tartaric and citric acids when alone or in mix-

tures. Citric acid is sometimes aduterated with tartaric acid, but a more common fraud is the substitution of tartaric acid for citric in many so-called "Granular Effervescent Citrates of Magnesia," and in bottles labelled "Solution of Citrate of Magnesia" (NEW REMEDIES, VI., p. 291).

The article for August (NEW REMEDIES, VI., p. 250) gave one method for determining the presence of tartaric acid. The following process for the separation and identification of tartaric and citric acids is good. Many of the details are found in "Prescott's Proximate Organic Analysis," p. 17. Another method, which answers pretty well, may be found in "Attfield's Chemistry," p. 320.

Dissolve one to two grammes of the mixed acids in a small amount of water, *nearly* neutralized with pulverized sodium carbonate; concentrate, add alcohol, not sufficient to cause a precipitate, and then add concentrated solution of potassic acetate as long as it causes a precipitate. Set aside for half an hour or longer, to allow time for complete precipitation, then filter, and wash with undiluted alcohol. The precipitate (*a*) may be dried and weighed as $KHC_4H_4O_6$, from which weight may be calculated the amount of tartaric acid in the sample taken.

The filtrate contains citrates and acetates of potassium and sodium, and some free acetic acid. It should be exactly neutralized with sodic carbonate, and tested for citrate by calcic hydrate, calcic chloride, plumbic acetate, and argentic nitrate; the solubilities of the various precipitates will distinguish citrates from tartrates. As these reactions are given in almost all books on analysis, it is unnecessary to repeat them here.

The precipitate (*a*) may be shown to contain tartaric acid radicle as follows:

Dissolve it in warm solution of sodic carbonate, being careful to make a solution exactly neutral to litmus paper; formation of "Rochelle salt." ($KNaC_4H_4O_6$) $2KHC_4H_4O_6 + Na_2CO_3 = 2KNaC_4H_4O_6 + H_2O + CO_2$. Precipitate this solution by argentic nitrate; the white precipitate is $Ag_2C_4H_4O_6$. Wash well on the filter, then rinse the white precipitate into a test-tube and add dilute ammonia very carefully until *nearly* all the precipitate is dissolved. Place the test-tube in boiling water and allow it to remain from five to ten minutes. A beautiful mirror-coating of metallic silver will be deposited on the glass. If too much ammonia were used, or if the argentic tartrate were not well washed, the silver would be precipitated as a black powder. By the method above given it is very easy to silver the inside of vases and various articles. (NEW REMEDIES, VI., p. 318.) There are a number of tests for distinguishing between tartaric and citric acids which depend upon the fact that tartaric acid is the stronger reducing agent. See text-books and NEW REMEDIES, VI., p. 326.

Among the analyses received this month, the following were correct: Analyses of "Icarus," "Syd," "Calcis," "Ally," "Hydro-carbon," and "Geo. McD." The prize for the best analysis has been awarded to "Icarus."

The February sample is organic, and may be found among the preparations of the pharmacopœia; its nature and purity are to be determined.

Relief of Pain Caused by the External Use of Iodine.—At a recent meeting of the Boston Society for Medical Observation, Dr. Knight remarked that he had found the application of ammonia beneficial in relieving the pain produced by the external use of strong tincture of iodine.

Dr. C. P. Putnam said he also had tried it, but without observing good effects.

Dr. Amory said that prussic acid added to a solution of iodine will decompose the iodine and hydrocyanic acid into hydriodic acid and volatile cyanogen. This might, in the hands of a cautious person, prevent the further irritation of a local application of tincture of iodine, and unless too much hydrocyanic acid be applied, none of the toxic agent would be left on the surface. Hydrocyanic acid will decompose half its volume of alcoholic tincture of iodine.—*Boston Med. and Surg. Jour.*

NOTES, QUERIES AND ANSWERS.

[*Under this heading we shall, to the best of our ability, endeavor to answer such questions addressed to us as come within the scope of this journal, provided they are accompanied by the name and address of the writer. Answers to queries received after the 5th of the month will lie over until the next issue.*]

Mustang Liniment (Ol. S., Wabash, Ind.). This consists, according to Hager and Jacobsen, of equal parts of kerosene, water of ammonia, and alcohol.

Mycothanaton (W. A. Th., N. Y.).—This is the name of various nostrums sold for the prevention of dry-rot, mould, etc., in wood. It is derived from *μύκη*, mykē, "fungus," and *θάνατος*, thanatos, "death." According to Wittstein, J. Müller's preparation consists of calcium chloride, 750, sodium sulphate, 1,500, mercuric chloride, 60 parts, dissolved in water 5,000 parts, to which are added hydrochloric acid, 2,500 parts. Another such compound, prepared by Vilain & Comp., Berlin, is a mixture of sodium chloride, alum, sulphuric acid, and water, according to Hager.

Tinctura nervina (Dr. K., Middletown, N. Y.).—This is an ethereal tincture of the chloride of iron (ferric chloride). It is called "Tinctura ferri chlorati ætherea" in the Germ. Pharm., and has the synonymes: "Spiritus ferri chlorati ætherei, Liquor anodynus martiatus, Tinctura tonico-nervina, Bestucheffii," etc. Formula:

Solution of ferric chloride, sp. gr. 1.480..	1 part.
Spirits of ether (Hoffman's Anodyne, Germ. Pharm.: Ether, 1 part, Alcohol, 3 parts).....	14 parts.

Mix them, and expose in a well-closed cylindrical glass flask to sunlight, until the brownish-yellow color has entirely disappeared; then set it in a shady place, occasionally taking out the stopper, until the liquid has assumed a brownish-yellow color. It contains in 100 parts 1 part of iron.

Melting Point of Fats (A. McV., Fonda, N. Y.).—The four fats which you inquire about are printed in *italics* in the following list, which we thought it best to publish entire, as it may be useful to others:

Butter (cow) fat	31—32.5° C.	Calf-fat	45—55° C.
Cacao "	25—27° C.	Camel-fat	50—55° C.
Badger "	25—28° C.	Human fat	22—26° C.
Elepnant "	26—28° C.	Horse "	50—60° C.
Fox "	30—34° C.	*Ox* "	36—40° C.
Goose "	12—25° C.	*Hog* "	28—32° C.
Hare "	45—48° C.	Wax, yellow	60—63° C.
Dog "	23—27° C.	" white	65—69° C.
Goat "	30—33° C.	" Japan	50—60° C.

Carlsbad Salt (W. G. W., Shelbyville, Ill.). The formula for artificial Carlsbad Salt is as follows: Sodium sulphate, 100 parts, sodium carbonate, 50 parts, sodium chloride, 25 parts; dissolve in boiling distilled water, 200 parts. Filter the solution and evaporate until crystallization begins; then set aside, and stir occasionally. Separate the crystals from the mother-water, and dry them, without washing, in a moderately warm place. To the mother-liquor add sodium sulphate, 25 parts, and again evaporate until crystals form. Separate these again from the mother-water, which latter throw away. Dry the crystals, mix them with those first obtained, and transfer them into well-stoppered bottles.

The other formula you inquire about we hope to be able to give you in our next.

Liquid Glue (C. D. M. W., Columbus, O.).—A very strong glue may be made by dissolving 4 oz. of glue in 16 ounces of strong acetic acid by the aid of heat. It is semi-solid at ordinary temperatures, but needs only to be warmed, by placing the vessel containing it into hot water, to be ready for use. A most excellent form is also *Dumoulin's Liquid and Unalterable Glue.* This is made as follows: Dissolve 8 oz. of best glue in ½ pint of water in a wide-

mouthed bottle, by heating the bottle in a water-bath. Then add slowly 2½ oz. of nitric acid, spec. gr. 1330, stirring constantly. Effervescence takes place under escape of nitrous acid gas. When all the acid has been added, the liquid is allowed to cool. Keep it well corked, and it will be ready for use at any moment. It does not gelatinize, nor putrefy or ferment. It is applicable to many domestic uses, such as mending china, wood, etc.

Liquid Stove Polish (same) may be made by mixing powdered plumbago with enough asphaltum varnish to make a thick paste, and diluting with benzine or turpentine, until sufficiently thin. Or 4 oz. of resin are dissolved in 1 gall. of benzine and 1 lb. of plumbago is mixed with it. Keep both liquids away from the fire, and polish your stove only while cold.

Explosion from a Mixture (J. W. S., New York City).—This correspondence brings to our notice a singular accident which took place lately, in consequence of the explosion of a mixture prescribed by one of our most prominent physicians. He (and others) had been in the habit, for years, of preparing the same or a nearly similar formula, and no accident has ever been known to occur. The prescription was the following:

℞. Tinct. ferri chloridi,
Glycerinæ puræ,
Potassii chloratis, ää....., ℥ ss. M.

The physician did not intend that this should be made into a solution, his object being to supply his patient with a sufficiently large amount of the ingredients of a gargle, without increasing the size of the package. For some reason or other the mixture had been warmed, and finally was delivered to the customer, who placed it into his satchel, where it after a while exploded with great violence. Our correspondent asks, could there have been free nitric acid in the tincture of iron to form, with the glycerine, nitro-glycerine, which exploded? We answer, that this is impossible. Nitro-glycerine requires for its preparation most highly concentrated nitric acid, which is out of the question in the present case. Our explanation is this, that the tincture of iron, having contained an excess of hydrochloric and nitric acids, acted upon the potassium chlorate, producing the substance which Davy termed euchlorine, but which is now regarded as a compound chiefly containing chlorous and chloric acids Cl_2O_3, $2Cl_2O_5$, and which explodes when heated to 70° C. As soon as the reaction of the hydrochloric acid upon the potassium chlorate had begun, heat was developed, which was intensified by the mixture being contained in a tightly corked bottle; when the temperature had reached 70° C., or thereabouts, the contents exploded. At least this appears to us the most natural explanation.

American Pharmaceutical Association (S. V., Grand Rapids, Mich.).—The qualifications for membership in this Association are contained in Art. 1, Chap. 7, of the By-Laws, which you may obtain from Prof. J. M. Maisch, 145 North Tenth Street, Philadelphia, Pa. It reads as follows:

"Every pharmaceutist and druggist, of good moral and professional standing, whether in business on his own account, retired from business, or employed by another, and those teachers of Pharmacy, Chemistry, and Botany who may be specially interested in Pharmacy and Materia Medica, who, after duly considering the objects of the Association and the obligations of its Constitution and By-Laws, are willing to subscribe to them, are eligible to membership."

The annual dues are five dollars; the initiation fee is also five dollars, except for those who appear at the annual meeting as regular delegates of some pharmaceutical association or college, and who are exempt from the payment of this fee.

Solvent for Shellac (S. V., Grand Rapids, Mich.).—A cheaper solvent than alcohol is ammonia. Place the vessel containing the shellac into another containing hot water; pour boiling water on the shellac, and add ammonia, slowly but continuously, until solution is effected. An excess of ammonia will color the solution brown. After cooling, the fluid is filtered, and may be kept in this condition for a long while. Borax in solution is also a solvent for shellac.

Chromo-Photographs. (S. M., Boston, Mass.)—The problem to produce colored photographs has lately engaged the attention of various experimenters, one of whom (W. Morgan Brown of London) has patented a process of which the following is an outline. Three negatives are made of one and the same object—one in green light, the next in orange light, and the third in violet light—which is accomplished by interposing glass-plates of the corresponding tint between the lens and the negative plate (inside the camera). The positive image of the first is developed upon a red, the second upon a blue, and the third upon a yellow transparent film. The three transparencies, placed on top of each other, then produce the desired colored photograph. This is the outline of the process; for details we must refer you to the current photographic literature.

PRESCRIPTIONS AND FORMULÆ.

Medicinal Pastes.—Professor Chevalier, of Bordeaux, gives the following comparative table of the formulæ for Pectoral Pastes, as ordered by the Codex, and as prepared by a prominent manufacturing confectioner, who supplies the principal grocers in France.

Codex.		M. X.	
JUJUBE PASTE.			
Jujube	500	Gum	45.000
Gum Arabic	3.000	Sugar	15.000
White sugar	2.000	Glucose	15.000
Orange flower water	200		
MARSH MALLOW PASTE.			
Gum Arabic	1.000	Gum	16.000
White sugar	1.000	Sugar	8.000
Orange flower water	300	Glucose	21.000
White of eggs	12.000	White of eggs	.400
ICELAND MOSS PASTE.			
Iceland moss	.500	Iceland moss	0.000
Gum Arabic	2.500	Gum	20.000
White sugar	2.000	Sugar	6.000
Extract of op.	1 grm. 50	Glucose	6.000
LIQUORICE PASTE.			
Juice of Calab. liq	.200	This is made from the	
Gum Arabic	1.500	froth of all the other pastes,	
White sugar	1.000	to which a little gum is added.	
Extract of opium	1 grm.		

Professor Chevalier remarks, if glucose is injurious to health, as Soubeiran and Guérard affirm, that these pastes should not be tolerated.

Even if not positively injurious, they are decided frauds, for the Iceland moss paste contains no Iceland moss; the liquorice paste contains no liquorice, and neither of them contain extract of opium.

It is also stated on good authority that the pastes of many manufacturers do not even contain gum Arabic—gelatine being substituted for it.—*Mouvement Médical*, No. 39.

Formulæ for Administering Butyl-Chloral.—This remedy seems to be a specific for pain in the branches of the fifth cranial nerve, and Friedinger (*Wiener Med. Woch.*) says that it can be relied upon to allay the fearful pains which attend inflammation of the iris and choroid, known as ciliary neuralgia. In all cases where it was given for the relief of this form of neuralgia, it exerted its anæsthetizing

effect without producing any collateral disturbances. This is his formula:

	Grammes.
℞. Butyl-chloral	1
Spir. vini rectif.	4
Aquæ destillat.	150
Syr. aurant. cort.	15

M. One tablespoonful every two hours.

Dr. Livon *(La France Méd.)* employs the following formulæ for administering butyl-chloral by the stomach:

	Grammes.
℞. Butyl-chloral	2
Glycerine (warm)	6
Ext. of liquorice	4
Water,	
Syrup,	ää 45

M.

For hypodermic injection the same observer gives the following formula:

	Grammes.
℞. Butyl-chloral	1.60
Glycerin,	
Cherry-laurel water,	ää 16.

M.

Each gramme of the solution contains 5 centigrammes. Divided doses of 5, 10, or 20 centigrammes repeated as required several times in succession, generally succeed in quieting pain. From 50 centigrammes to 1 gramme instantly relieve pain of considerable intensity, and for very severe pain the dose may be carried to 3, 4, or even more grammes at once.—*Chicago Med. Jour. and Exam.*

The Brown-Séquard Treatment in Epilepsy.

℞. Sodii bromidi,	
Ammonii bromidi	ää ʒ iij.
Potassii iodidi,	
Ammonii iodidi	ää ʒ iss.
Ammoniæ sesquicarb.	ʒ i.
Tinct. calumbæ	fʒ iss.
Aquæ destillat.	ad fʒ viij.

M.

Full dose: one and a half drachms before each meal, and three drachms at bedtime.

Sapo iodo-bromatus (H. Hager). (Bromo-iodine Soap.)

℞. Oil of poppy seed	300 parts.
Water,	
Solution of caustic potash,	
Solution of caustic soda	ää 100 parts.

Heat in a porcelain vessel on the water-bath, under constant stirring, until saponification has taken place; then add:

Potassium iodide	10 parts.
Potassium bromide	5 "
Sodium hyposulphite	30 "
Potassium sulphide	10 "
Sulphur, precipitated	2.5 "

Previously reduced together to a fine powder.

Divide the product into two portions, each of which is intended for one application in form of a bath.

Pile-Ointment.

℞. Ceræ flavæ	partes 8
Resinæ	" 4
Adipis	" 12
Olei sassafras	" 2

Melt the wax, resin and lard; remove from the fire, add the oil of sassafras, and stir until the mass is solid. This is said to be a most excellent application for painful or itching piles.

"Russian Drops."

℞. Tinct. valerian. æther	2 fl. ʒ
Vin. ipecac	1 fl. ʒ
Aceti opii	20 min.
Ol. menth. pip.	5 drops.

One dose: To allay the violent vomiting in cholera.

Liquid to Preserve Microscopic Specimens.

F. MEYER gives the following formulæ in the *Gazette Hebdomadaire* of Oct. 12th:

a. For larvæ, hydræ and nematodæ:

Glycerine, chemically pure at 1240	1 part.
Distilled water	2 parts.

To ten parts of this mixture add one part of the following solution:

Pyroligneous acid at 1040	100 parts.
Salicylic acid	1 part.

b. For infusoria:

Glycerine	1 part.
Distilled water	4 parts.

To ten parts of this add one part of the above solution of salicylic acid.

c. For algæ:

Glycerine	1 part.
Solution salicylic acid	1 part.
Distilled water	20 parts.

Formula for Migraine.

Dr. Fort recommends the following:

℞. Quiniæ sulph	grs. xv.
Pulv. belladonnæ	grs. iv.
Ext. digitalis	grs. vijss.
Ext. Valerianæ	grs. xv.

Melis q. s. ut f. pil. xx.

Commencing four days before the time when the paroxysm is expected, the pills are to be taken in this manner, viz.: beginning with one in the morning and one at bedtime, the next day two are to be taken in the morning and one at bed-time. On the following day three are to be taken in the morning and a like number at night, and on the day preceding the expected attack four are to be taken in the morning and five in the evening. This is to be repeated in a similar way in advance of subsequent attacks.

A Superior Paste.—Mr. Charles A. Durfee, in the *Library Journal*, makes the following remarks regarding a paste which will remain firm through years of handling, and at the same time not stain the page by striking through, as is often the case with gum arabic: After years of experiment, he finds that a paste made of seven parts of gum tragacanth and one part of gum arabic, with a few drops of oil of cloves, or diluted carbolic acid, will be found most reliable. Bookbinder's paste is excellent, but needs renewing every few days to avoid souring. The following receipt for starch paste he says is very good: Two ounces of starch, one ounce of white glue, half an ounce of acetic acid, a few drops of oil of cloves. Dissolve the glue in cold water and then boil. Dissolve the starch in cold water, and pour into the glue while boiling.

Packing Paper may be made water-tight by dissolving 8.82 lbs. of white soap in 1 quart of water, and dissolving in another quart 1.82 ozs.—troy weight—of gum arabic, and 5.5 ozs. of glue. The two solutions are to be mixed and warmed, the paper soaked in the mixture, passed between rollers and hung up to dry.

[A much simpler and equally efficacious mixture can be made by the addition of a small quantity of bichromate of potash dissolved in water, to the solution of glue alone.]

To Protect Furs from Moths.—The best protective for this purpose is said to be naphthalin, which is also supposed to be the basis of various commercial moth-destroyers, such as "antiputrin," "antirirein," "tineol," etc.

NEW PATENTS.

[The following list is compiled from official sources, especially for NEW REMEDIES, *by S. H. Wales & Son, Solicitors of Patents, 114 Nassau St., New York, who will furnish gratis to subscribers any information relating to this department. Electrotypes of the illustrations contained in* NEW REMEDIES *will be furnished by us for 50c. per square inch.*

TRADE-MARKS REGISTERED DURING OCTOBER, 1877.

Medicinal Preparations.

5,259. J. H. Zeilin & Co., Macon, Ga. The facsimiles of the signatures of A. Q. Simmons and J. H. Zeilin & Co., used in connection with the words "Dr. Simmons' Liver Regulator or Medicine."

5,268. Peter Huckendorff, New York, N. Y. The word-symbol "Dorf."

5,270. Charles Paxson, New York, N. Y. The word-symbol "Balm of Sunshine."

5,282. David E. Becker, Easton, Pa. The word-symbol "Camphenyl."

5,283. J. Austin Rogers, Boston, Mass. The word-symbol "Arabian."

5,285. Fritzsche Brothers, Hoboken, N. J., and New York, N. Y. The words and symbols "Fritzsche, Schimmel & Co." running across the top, on the outer arc of a circle, printed in black, in large capitals on a white ground, and also the medals.

5,287. Maria L. Lee, Philadelphia, Pa. "First, the words 'Dr. Samuel H. P. Lee's;' second, the facsimile of the signature of Dr. Samuel H. P. Lee, to wit; 'Saml. H. P. Lee;' and third, a vignette likeness or picture of the head and neck of a man, the same being the likeness of the late Dr. Samuel H. P. Lee.'"

5,289. Oscar G. Moses, New York, N. Y. "The letters 'P. U. L. M. O. N. A.' arranged so as to form the word-symbol 'Pulmona.'"

Paints.

5,261. P. O'Brien, South Bend, Ind. The design of a circular pail resting upon a circular or cylindrical base, supported upon short legs, the front of the cylindrical base being cut away, exposing a conical lamp, with a flame slightly spreading under the bottom of the pail.

Chemicals.

5,217. Emanuel Lauferty, New York, N. Y. The word-symbol "Alka."

5,228. Benjamin T. Babbitt, New York, N. Y. The pictorial representation of a loaf of bread, upon which a vase-shaped vessel having an overflowing sponge of aërated dough surmounting it. (Saleratus.)

5,231. The same. A device representing a sheaf of wheat standing erect with the heads drooping naturally all around from the column of stalks.

Carbonated Beverages.

5,202. Horace L. Bowker, Boston, Mass. The representation of a barrel surrounded by boys drinking, etc., etc.

Cosmetics and Perfumery.

5,218. Charles Laubrecht, Brooklyn, N. Y. The word-symbol "Imperial." (Cologne.)

5,224. Charles Suez, Paris, France. The word-symbol "Eau-de-Suez," accompanied by a cross. (Dentifrices).

5,249. Hall & Ruckel, New York, N. Y. The word-symbol "Sozodont."

5,263. Johann Maria Farina, Gegenüber dem Jülichs-Platz, Cologne, Germany. "An interior circle divided by radial lines into four sections, of which the upper section contains a miniature representation of a sun with rays radiating therefrom, while the side and lower sections contain respectively the letters 'I. M. F.,' being the initial letters of our firm-name. The words 'Gegenüber dem Jülichs-Platz' (opposite the Jülichs Place) are arranged around the inner circle and enclosed by a second exterior circle."

5,265. The same. A pictorial representation of the place of business of our firm in the city of Cologne, Germany (opposite the Jülichs Place).

LABELS REGISTERED DURING OCTOBER, 1877.

1,191. "John Meagher's Celebrated Eye-Water." John Meagher, Minneapolis, Minn.

1,193. "Volney's Wild Cherry Cough Candy." Charles H. Davis, Boston, Mass.

1,201. "Jamaica Pills." C. F. Randolph, Altoona, Pa.

1,202. "Jamaica Syrup." C. F. Randolph, Altoona, Pa.

1,217. "The Magnetic Remedy." Julia Blankman, New York, N. Y.

1,220. "Neurotic, the Great External Remedy for Neuralgia." Holleman & Co., Morganton, N. C.

1,221. "The Goodyear Practical Syringe." Goodyear Rubber Company, New York, N. Y.

1,222. "The Goodyear Superior Syringe, No. 1." The same.

1,223. "The Goodyear Improved No. 1 Household Emma Syringe." The same.

1,224. "Horsford's Acid Phosphate." Rumford Chemical Works, Providence, R. I.

1,225. "Vreeland's Medicated Wine of Wild Cherries." Benjamin Vreeland, Passaic, N. J.

1,226. "Vreeland's Tonic Wine of Wild Cherries." The same.

1,227. "Spalding's Celebrated Prepared Glue." Hall & Ruckel, New York, N. Y.

PATENTS GRANTED DURING OCTOBER, 1877.

October 2d.

Bath, portable, hot air or vapor, G. H. Ellis	195,753
Battery, galvanic, C. A. Hussey	195,762
Bottle-stopper, etc., F. J. Seybold	195,849
Cork-fastening machines, C. A. Werner	195,734
Distilling column, E. G. Sturck	195,852
Measure and funnel, combined graduated, S. Schippert	195,846
Syringe, vaginal, R. H. Woodward	195,868

October 9th.

Alum, manufacture of, G. P. Rockwell	196,043
Ammonia-salts, treating gas-liquor for, L. S. Fales	195,998
Bottle-stopper and fastening, H. B. Anderson	195,970
Crucibles, retorts, and chemists' ware, compound for, R. W. Walace	196,061
Douche, G. M. Smyser	196,050
Lenses, apparatus for the focal measurement of, Lomb & Scharpf	196,028
Surgeons' bandages, fabric for, H. P. Plante	196,040
Surgeons' apparatus for fractures of the clavicle, B. G. McCabe	195,941
Syringe-bottle, hypodermic, E. Pfarre	195,947

October 16th.

Ammonia-soda process, apparatus for continuous decantation in the, E. Solvay	196,259
Can for transporting liquids, J. Graves	196,083
Corkscrew, G. Havell	196,226
Dentifrice, E. G. Ward	196,275
Drawer-pull, D. J. & W. A. Clark	196,193
Inhaler, W. Boekel	196,185
Inhaler and respirator, I. S. Emery	196,206

Lime and magnesia from silicates and aluminates, manufacture of hypochlorites of, E. Solvay.. 196,258
Paper, machine for manufacturing parchment, W. Martin 196,098
Salicylic acid by dialysis, purifying, E. Schering.. 196,254
Stopper-fastener, J. L. Stewart..... 196,260
Truss, elastic, Tyre & Horne 196,272
Whiskey and other spirits, apparatus for aging, H. C. Johnson..... 196,094

October 23d.

Aging liquors, apparatus for, W. M. Storm..... 196,373
Dental plates, composition for molds for, Knight & Whiteside..... 196,300
Evaporating or calcining alkaline solutions, apparatus for, Kitchen & Allen..... 196,462
Exercising device, S. M. Barnett..... 196,324
Faucet for bottles, Vent, H. Downes..... 196,437
Faucet-shield, C. C. Lienau 196,465
Faucet, vented demijohn, G. W. Banker..... 196,285
Fluids under pressure, vessel for containing, C. H. Wilder..... 196,408
Health-lift, F. A. Clifford..... 196,435
Liquids, vessels for holding, W. F. Sherman 196,487
Oil-tank, self-measuring, E. A. Smead..... 196,394
Sal-ammoniac and sulphate of soda or potash, manufacture of, C. Smead 196,464
Soap-composition, W. V. Wallace..... 196,402
Syringe, A. Berger..... 196,417
Teeth, plate for artificial, B. St. John..... 196,397

October 30th.

Bottle-stopper, T. H. Brady 196,624
Bottle-stopper fastener..... 196,527
Drawer-pull, G. W. Tucker..... 196,606
Evaporator, J. M. Randolph..... 196,595
Faucet, registering and measuring, Jopy & Dallier 196,668
Nursing apparatus, G. F. White..... 196,610
Nursing-shield, J. W. Patch..... 196,594
Paint-mixer, J. W. Masury..... 196,533
Plaster of Paris, process of hardening, A. B. & R. A. Kay..... 196,671
Scale-beam, D. L. Columbia..... 196,519
Scale-beam, C. M. Rider..... 196,703
Speculum, A. Shiland 196,600

ITEMS.

Pharmacopœial Revision.

A MEETING of the Pharmacopœia Committee of the American Pharmaceutical Association was held at the rooms of the College of Pharmacy of the City of New York, on Friday, Dec. 28, 1877, at 3 P.M. Present were: Professors J. M. Maisch and J. P. Remington, of Philadelphia; Prof. G. F. H. Markoe and Mr. A. S. D. Sheppard, of Boston; Prof. P. W. Bedford, Dr. F. Hoffmann, and Mr. Charles Rice, of New York. Dr. E. R. Squibb, of Brooklyn, who had been invited to attend, took part in the deliberations. The circular, which was issued by the chairman, on Oct. 15, 1877, was then discussed in detail, and the following conclusions were arrived at.

[To save space, we refer to the numbered paragraphs of the circular, which will be found in NEW REMEDIES, 1877, p. 309.]

§§ 1 and 2 are adopted, without however establishing classes of Herbæ, Radices, Flores, Folia, etc.

§ 3. The following crude drugs were stricken from the list: Arum, Cactus, Chelidonium, Kalmia, Malva, Pulsatilla, Symphytum, Tilia, Trifolium, Verbascum. Guarana will receive the officinal name Paullinia, and Rhamnus Frangula will be termed Frangula, to avoid being mistaken for Rhamnus catharticus.

Among the preparations and chemicals the following were discarded: Colchicia, Emetia, Platini chloridum, Propylamia, Sodii santonas, Sodii sulphovinas, Trimethylamia, Elæosacchara, Ext. petroselini fl., Liquor ammonii anisatus, Opium denarcotisatum, Tinctura eucalypti, Tinct. ferri acetatis, Tinct. gelsemii. And the following changes and additions were made: Auri et sodii chloridum for auri chloridum; Conia hydrochlorate, for conia. Argenti nitras fusa cum chlorido; Opii pulvis (to be mentioned under opium); Potassii silicas; Ext. eucalypti fl.; Tinctura vanillæ (the name changed from Fl. Ext.); Tinctura rhei dulcis; Syrupus stillingiæ comp.; Syrupus sennæ; Syrupus ferri bromidi.

§§ 4, 5, and 6 were adopted. No. 5 subject to further revision.

§ 7. It was thought best to add not only the *new*, but also the *old* formulæ of chemicals; both to be prominently distinguished by different styles of type.

§ 8. The question of Fluid Extracts occupied the attention of the committee for a long time. The result of the deliberations was, that all the questions were reduced down to two alternatives each, respecting their strength and the method of preparation. They are here placed side by side for more easy comparison.

STRENGTH:

100 parts of the drug to be made, by a menstruum of known strength, into such a weight of fluid extract (probably differing in each case), that it will still represent minim for grain.	100 parts of the drug to be made, by any menstruum capable of exhausting the active principles, into 100 parts of fluid extract.

PROCESS:

Procter's process (U. S. Ph., 1860), with proper improvement whenever necessary.	Repercolation (Dr. Squibb's process).

As to the question of strength, the majority of the Committee appeared to be in favor of the second alternative, to make them grain for grain. In respect to the process, Dr. Squibb laid before the committee such weighty arguments in favor of repercolation, as being the most perfect process that could possibly be devised, that it was resolved to defer any decision on this question, until Dr. Squibb could have time to bring forward a practical working formula constructed on this plan, and showing its use on the scale of the pharmacopœia by an example. Dr. Squibb also exhibited a very simple and novel percolator, which seems to facilitate the process remarkably, and which will be described hereafter.

There is no doubt whatever, that, if the formula for repercolation can be constructed so as to be perspicuous and concise, its adoption will be only a question of time. If it *is* the best process—and nearly all first class manufacturers have found it so—why should the pharmacist on the small scale not use it?

§ 9 was abandoned.

§ 10. Among the tables, the first is to have something like the following title: A table of the largest single and daily doses of powerful remedies, which the pharmacist should not dispense, unless the physician adds some distinguishing mark.

h was stricken out, and a Table of Signs and Abbreviations inserted.

§ 11. It was resolved, where definite quantities are to be given, as in the weight of certain pills, trochees, etc., to give the weights both in grains and in grammes. It was also resolved, in the construction of all formulæ by parts, to express the proportions of the ingredients in the simplest terms, and, whenever practicable, in a decimal ratio.

Improvement in Filter-Papers. Mr. T. Ross, of Cape Town, has made an important improvement in filter-papers. One side of each sheet has affixed to it a sort of muslin with large meshes, which serves not only to prevent the paper from adhering too closely to the sides of the funnel, but also renders it stronger and better able to withstand the weight of the superincumbent fluid.

Paraffin Paper.—If paraffin be dissolved with the aid of very gentle heat in ordinary commercial benzole, in the proportion of one part of the former to four of the latter, and the solution be brushed over tissue paper, a cheap but very good substitute for waxed paper may be extemporized. After coating the tissue paper it should be hung up to dry, which is accomplished in a very short time, the paper presenting, at this stage, more or less a white, mottled appearance. Next expose it to a gentle heat sufficient to remelt the thin coating of paraffin, when it will set into a fine uniform and permanent glaze, in which condition it is ready for any of the purposes for which such papers are generally required. Paper thus prepared will be found particularly useful for tracing purposes, the pencil or pen running smoothly over it, with no tendency to blur or blot, as in some tracing-papers frequently met with. It will also be found valuable in preserving powders and other substances susceptible to change from exposure to air, of which chloride of lime is an example. Turpentine will also dissolve the paraffin, but it requires hours to dry, while the benzole requires as many minutes. When required in large quantity the paper may be floated on the surface of a bath of paraffin solution in the same manner that photographic paper is sensitized.

Mode of Utilizing Scraps of Gutta-Percha.—Scraps of gutta-percha tissue, such as are ordinarily thrown away, may be made to serve a good purpose in pharmacy by dissolving them, with gentle heat, in commercial benzole, and adding vermilion or other pigment for the sake of color and to give greater body to the solution. The stoppers and necks of bottles, when brushed over or dipped in this solution, are hermetically coated, and a capsule is formed which is impervious to air, moisture, oil, alcohol, and, indeed, most liquids. It is easily torn off when desired, and has the additional advantages of being cheap, simple, and neat.

Oxalic Acid from the Waste of Parchment Paper.—In the manufacture of parchment paper, after the treatment with sulphuric acid, there is a large amount of waste which cannot be converted into paper, and which is commonly burned under the boilers. In a single factory this waste often ranges from 1,500 to 3,000 pounds per month. It is so rich in cellulose that it seems desirable to turn it to more profitable use, and recently the process suggested in 1857 by Robert Dale, for manufacturing oxalic acid by heating sawdust with caustic alkali has been adopted. It is thought that when the carriage of the waste is attended with small cost it can probably be worked so as to yield a more profitable return than Tessie de Motay's patent method for making oxalic acid from turnips, or the process of Posson for preparing it from wheat-bran. The factory of Dr. Kunheim, of Berlin, which yearly makes 200 tons of oxalic acid from sawdust, has undertaken to give M. Cech's plan a thorough trial.

Malt, as an Antiscorbutic, had a reputation so far back as the reign of Elizabeth in England, for Hakluyt writes that hogsheads of ale were considered important adjuncts in victualing a ship in those days, and Glauber, the celebrated chemist, in a tract entitled "Consolation for Mariners," written about the beginning of the seventeenth century, strongly advocates the claims of malt or sweet-wort, as a preventive or remedy for scurvy. Dr. Ralfe—so says *The Lancet*—has tried malt extracts in a case of scurvy in the Seaman's Hospital, with the effect of improving the patient, although partaking of a strictly "scorbutic" diet at the time.

Jean François Vincent Raspail, of Paris, quite as famous as a politician as for his knowledge of chemistry, is dead. He was born at Avignon in 1794, where he acquired his knowledge of the law and of natural sciences. Between 1824 and 1830 he contributed many scientific articles to French publications. In the latter year he took part in the revolutionary movement, and was wounded during the street fighting in Paris. Although official employment was offered him, he kept aloof from the Government of Louis Philippe, and was so zealous a Republican that he became the object of a series of prosecutions which cost him six years' imprisonment. Meanwhile, he continued his scientific studies, and wrote several works in prison. He took a prominent part in the revolution of 1848, and was a member of the Constitutional Assembly, but having again engaged in committing revolutionary acts, he was sentenced in 1849 to imprisonment for five years. Twice during his stay in prison he was elected a deputy, but, of course, could not act as such. On being liberated in 1854, he went to Belgium, where he resumed his scientific studies. In 1869 he reappeared in public life, and was elected to the French Legislature in two districts, defeating the noted Liberals Garnier-Pages and Jules Favre. He joined Rochefort in editing the *Marseillaise*, and took a prominent part in exciting hostility to the Government. In 1870–71 he was connected to some extent with the Commune movement. M. Raspail was the author of several works on chemistry and the preservation of health.

List of Drugs Rejected at the Port of New York during 1877.—We have received from the Assistant-Appraiser the following list of drugs which have not been allowed to enter at the port of New York during the year:

Gum Guaiac, 42 boxes, 29 cases, 1 barrel, not of requisite strength and purity.

Balsam Copaiba, 25 drums, 7 barrels, damaged with sea-water, not fit for medicinal use.

Jalap, 11 bales, not of requisite strength and purity.

Squills, 3 bales, damaged, not fit for medicinal use.

Rhubarb, 5 cases, spurious.

Assafœtida, 4 cases, not of requisite strength and purity.

Iceland Moss, 3 bales, damaged, not fit for medicinal use.

Hellebore Root, 1 bale, damaged, not fit for medicinal use.

The Sponge-fisheries.—Returns of the sponge-fisheries belonging to Greece show that there are at present 150 boats engaged in this trade, 40 of which have English diving-bells. Twenty-four of these boats belong to the island of Ægina, and the remainder to the islands of Kolymnos and Simi. Each of the boats which are supplied with diving-bells has a crew of from 11 to 150; the others are manned by only four sailors, so that the total number of men engaged in these fisheries may be put down as about 1,000. They took last year more than 240 tons of sponges of different qualities, the total value being $368,000. Sponges of the finest quality are sold upon the spot at from $3.12 to $3.40 a pound, and the second qualities for rather less than $1.40. The fishermen have to pay a tax of 10 per cent. on the gross values of their takes. The cost of a diving apparatus is $1,067, and each vessel makes four voyages a year, taking about a ton of fine sponges. The divers remain under water about six hours a day when they are fishing, and it is said that many of them die of suffocation, and numbers lose their hearing after a few years of this work. The island of Ægina, whose divers are very renowned, is building nine new boats, which will be launched very shortly, and it is stated that the annual profits of the fisheries were nearly $145,550 for that island alone.

A Circulating Surgical Instrument Association has been started by Mr. Millikin, in London. By an annual subscription of one guinea, any medical practitioner may borrow, in good working order, any surgical instrument which may be required either for operation or for the treatment of a case.

American Gum Arabic.—The mesquite gum of Western Texas is almost identical with gum arabic. During the past year it has become an article of export, some 12,000 pounds having been gathered in Bexar county, and as much more between that and the coast. This gum exudes from the stem and branches of the mesquite, a mimosa, several species of which grow in Texas, New Mexico, and Arizona.

Duty on Corks and Cork-Bark.—It is reported that a petition has been largely signed and will soon be presented to Congress, asking that the duty on corks and cork-bark be abolished.

Production of Quicksilver in California during 1876.—The production has been largely in excess of any previous year, and the following gives the yield of the different mines of the State:

		Flasks.
New Almaden		20,631
Redington		9,183
Sulphur Bank		8,732
New Idria		7,272
Guadeloupe		7,381
Altoona, Trinity County		2,000
Oceanic	San Luis, Obispo County.	2,416
Sunderland		1,570
St. John's, Solano County		2,085
Abbott, Colusa County		1,436
Great Western	Napa Lake and Sonoma Counties.	4,495
California		1,184
Oakland		2,150
Cloverdale		1,028
Manhattan		976
Oathill		510
Buckeye		407
Sundry		1,618
Total		75,074

The price has been low throughout the year, falling at one time to 40 cents per lb., but it gradually rose to 55 cents, and remained there for a short period, when it declined to 50 cents, at which price it was selling for at the close of the year. The exports have increased in as great a proportion as the production, the reduced price materially increasing the consumption in the various markets of the world. The exports by sea are given as follows:

To	Flasks.
New York	3,094
Mexico	7,400
Chili	825
New Zealand	410
China	24,526
Japan	427
Central America	205
British Columbia	36
England	650
South America	2,774
Australia	793
	41.140

The exports in the four previous years have been:

	Flasks.
In 1875	28,960
" 1874	6,770
" 1873	6,359
" 1872	13,089

Borax.—The amount made in Nevada and California for 1876 aggregated 2,669 tons, being less than the quantity produced in 1875, for specific reasons, as shown below. The low price ruling, consequent upon the determined efforts of the Tuscan manufacturers to drive Nevada and California out of the market, has had the effect of closing down for awhile one of the largest producers and several of the smaller ones, while the attempt on the part of some inexperienced parties to utilize borate of lime has so far ended in failure. In August a combination was formed to put up the price to 8c., and held firmly, thinking it would force buyers into the market. Finding it had no such effect, one of the manufacturers reduced the price to 5¾c., and has been selling all the out-turn of October, November, and December for New York. Europe in the meantime has been using up supplies on hand and on the way, or drawing from Tuscan makers.

It is claimed that, with the new machinery about being introduced, we can compete with Tuscany, India, or South America. The produce of the State Range District has been over 1,000 tons. No borax is now made in the State of Nevada, all the manufactories having been closed. The total receipts of borax have been about 2,500 tons.

The Attempted Acclimatization of Cinchona Trees in the Melbourne Botanic Gardens has proved an unmitigated failure, Dr. R. W. Gilfoil, the director, having reported that he has not ascertained a single instance in which the experiment has been attended with success out of doors.

New Potash Fields.—The discovery of another immense bed of potash salts near Stassfurth, is announced by '*Iron*.' It appears that the Continental Diamond Rock-boring Company, having some of its machinery unemployed, made some speculative borings at Aschersleben to ascertain the limits of the Stassfurth deposits. The borings proved the existence of thick beds of potash and soda salts, supposed to be the result of the evaporation of an inland sea, lying within the triangle formed by the three towns of Magdeburg, Halle, and Nordhausen.

Ten kinds of minerals were met within the borings. The first found, after passing through the salt clay, was a variety of common salt and kieserit, containing 18-20% of potassium chloride. This was followed in succession by carnallite (upwards of 100 feet thick in many parts), a double chloride of potassium and magnesium ($KCl.MgCl_2+6K_2O$) and kainit, a double sulphate of potassium and magnesium, combined with chloride of magnesium, ($K_2SO_4.MgSO_4+6H_2O$). Then kieserit, a monohydrated sulphate of magnesium ($MgSO_4+H_2O$), was found in considerable quantities, forming about 17 per cent. of all the minerals extracted; polyhalit, which is a triple sulphate of calcium, magnesium and potassium ($2CaSO_4MgSO_3K_2SO_4+2H_2O$) was found at the top and bottom of the potash layers: in the former in the kieserit; in the latter in the salt. Common rock salt was found below the potash layers, to a depth of more than 2,000 feet, and then was not exhausted. In the carnallite and kainit the following layers were found: Sylvin, nearly pure chloride of potassium; tachydrit ($CaCl_2.2MgCl_2+12H_2O$); astrakamit, a double sulphate of sodium and magnesium; ($Na_2SO_4MgSO_4+4H_2O$), and boracit ($2Mg_3B_8O_{16}.MgCl_2$).

Very liberal terms are granted under the Prussian laws to mineral explorers, and the managing director is said to have secured for the prospecting company the concession of an area of nearly twenty-four million square metres of land. It is intended to commence operations for working the beds forthwith.

Consumption of Glycerin in Europe.—According to W. Kraut, Europe produced during the year 1873 the following quantities of glycerin (calculated as 20° Baumé):

France,	about	60,000 cwt.
Austria,	"	20,000 "
Russia,	"	20,000 "
Germany,	"	15,000 "
Belgium and Holland,	"	15,000 "
England,	"	10,000 "
Italy,	"	5,000 "
Spain,	"	5,000 "
Sweden and Norway,	"	2,000 "
Total,	"	152,000 cwt.

Of this quantity about 60,000 cwt. are refined, furnishing 50,000 cwt. of redistilled glycerin, which is consumed as follows:

Soaps and perfumery	10,000 cwt.
Textile fabrics, dyeing, tanning, etc.	10,000 "
Dynamite manufacture	6,000 "
Pharmaceutical purposes	6,000 "
Gas-metres	1,500 "
Printing rollers	1,500 "
Export	10,000 "
Total	45,000 "
Used for articles of food and drink	5,000 "
Total	50,000 "

Petroleum-Soap.—A patent has been granted in France to M. Thellot for the following formula: 60 kilos heavy petroleum oil, 20 kilos carnauba wax, 20 kilos tallow or fat, 80 kilos soda-lye of 30° B., and 50 litres of water.